

ZHE HE, PhD, FAMIA (Last Update: December 2024)

Associate Professor
School of Information
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Highlights

- Over 15 year of research experience in Biomedical Informatics, AI in Medicine, Clinical Research Informatics, Consumer Health Informatics, Ontologies, Knowledge Representation, Natural Language Processing, and Machine Learning
- **Inducted as the Fellow of the American Medical Informatics Association in 2022**
- **Recipient of 2022 Lois Lunin Award from the Association for Information Science and Technology (ASIS&T)**
- Published over 110 papers in mainstream journals and conferences in Biomedical Informatics
- Two first-author papers won *Distinguished Paper Awards* from AMIA 2017 and 2015 Annual Symposium
- Recipient of *2021 Faculty Leader/Builder Award* of College of Communication & Information, Florida State University
- Recipient of *2022, 2019, and 2017 Outstanding Faculty Research Award* of College of Communication & Information, Florida State University
- One paper selected into “*2013 Informatics Year in Review*” in AMIA 2014 Annual Symposium
- One paper selected as a finalist in the *Student Paper Competition* of AMIA 2015 Summit on Clinical Research Informatics
- Over 11 years of teaching experience in both undergraduate and graduate level courses on programming, database, data mining, and health informatics
- Recipient of the NJIT *Outstanding Student Leadership Award* (2013-2014)

ACADEMIC APPOINTMENTS

08/2020 – Present	Florida State University , Tallahassee, FL, USA <i>Associate Professor (tenured) & MSIT Program Chair</i> , School of Information College of Communication and Information <i>Interim Director</i> , Institute for Successful Longevity <i>Subject Matter Expert on Health Sciences</i> , College of Communication and Information (08/2022 – 05/2024) <i>Associate Professor (courtesy)</i> , Department of Behavioral Sciences and Social Medicine, College of Medicine <i>Associate Professor (courtesy)</i> , Department of Statistics <i>Associate Professor (courtesy)</i> , Department of Computer Science <i>Director</i> , eHealth Lab <i>Informatics Lead & Director of Biostatistics, Epidemiology, and Research Design Program (BIRD)</i> , UF-FSU Clinical and Translational Science Award (UF-FSU CTSA) <i>Methods Core Consultant</i> , Center for Translational Behavioral Science
08/2015 – 08/2020	Florida State University , Tallahassee, FL, USA <i>Assistant Professor & MSIT Program Chair</i> , School of Information College of Communication and Information <i>Director</i> , FSU eHealth Lab <i>Methods Core Lead</i> , Center for Translational Behavioral Science <i>Informatics Lead</i> , UF-FSU Clinical and Translational Science Award
02/2014 – 07/2015	Columbia University , New York, NY, USA Department of Biomedical Informatics College of Physicians and Surgeons <i>Postdoctoral Research Scientist</i>

Research topic: “Assessing the Collective Population Representativeness of Related Clinical Trials”

Advisor: Dr. Chunhua Weng, FACMI

EDUCATION

- 01/2009 – **New Jersey Institute of Technology (NJIT)**, Newark, NJ, USA
01/2014 *Ph.D., Computer Science*
Dissertation title: “Using Structural and Semantic Methodologies to Enhance Biomedical Terminologies”
Co-advisors: Drs. James Geller and Yehoshua Perl
- 08/2007 – **Columbia University**, New York, NY, USA
05/2009 *M.Sc., Computer Science*
- 09/2003 – **Beijing University of Posts and Telecommunications (BUPT)**, Beijing, China
07/2007 *B.S., Computer Science (with honor)*
Thesis title: “Design and Performance Analysis of Web Service-Based Interoperable Interfaces between Heterogeneous Network Management Systems”
Advisors: Drs. Luoming Meng and Xuesong Qiu

RESEARCH INTERESTS

My research lies at the intersection of Biomedical Informatics, Computers Science, and Information Science. My research expertise includes machine learning, natural language processing, knowledge representation, and big data analytics. In FSU, I direct the [eHealth Lab](#). The overarching goal of my research is to improve population health and advance biomedical research through the collection, analysis, and application of electronic health data from heterogeneous sources.

I have been publishing in the following topics:

- Clinical Trial Generalizability Assessment and Optimization
- Explainable Artificial Intelligence in Medicine
- Biomedical Natural Language Processing
- Biomedical Ontologies and Controlled Vocabularies
- Consumer Information Seeking

RESEARCH EXPERIENCE

- 09/2023-3/2024 **National Center for Biotechnology Information, National Library of Medicine, National Institutes of Health, Bethesda, MD**
Guest Researcher
- Conducted research in generative large language models for health applications
- 8/2020 - Present **School of Information, Florida State University, Tallahassee, FL**
Associate Professor / Subject Matter Expert in Health Sciences
- Conducted research in the areas of Biomedical Informatics, Health Data Science, Clinical Research Informatics, Consumer Health Informatics
 - Mentored PhD, MS, and undergraduate students
- 8/2015 – 08/2020 **School of Information, Florida State University, Tallahassee, FL**
Assistant Professor
- Conducted research in the areas of Biomedical Informatics, Health Data Science, Clinical Research Informatics, Consumer Health Informatics
 - Mentored PhD, MS, and undergraduate students
- 02/2014 – **Department of Biomedical Informatics, Columbia University, New York, NY**
07/2015 *Postdoctoral Research Scientist*
- Developed a computable database for 160,000+ clinical trial summaries (AMIA 2014)
 - Developed a visual analysis tool for clinical trial target populations (JBI 2015)

- Developed a method for analyzing drug retest patterns in longitudinal clinical trials (AMIA Informatics Summit 2015)
- Developed a method for assessing the population representativeness of clinical trials using National Health and Nutrition Examination Survey data (MEDINFO 2015)
- Developing a method for assessing the population representativeness of clinical trials using multiple eligibility variables (JBI 2016)

01/2009 –
12/2013

Structural Analysis of Biomedical Ontologies Center, NJIT, Newark, NJ

Research Assistant

- Structural auditing technique for the UMLS (supported by NIH grant R01-LM008445): designed and built a Web-based system to support multiple UMLS semantic type assignments; designed a pipeline for sculpting the refined semantic network of the UMLS (OHPHI 2014, JBI 2013)
- SNOMED CT (supported by NIH grant R01-LM008912): analyzed the readiness of SNOMED CT concept descriptors for primary care; analyzed the CORE & VA/KP problem list concepts of SNOMED CT (AIIM 2013, MIXHS 2012)
- Designed a framework for supporting quality assurance of ontologies in NCBO BioPortal (AMIA 2013)
- Developed a structural algorithmic method for harmonizing codes between UMLS source terminologies (AMIA TBI 2014)
- Led the development team for the Neighborhood Auditing Tool

TEACHING EXPERIENCE

Florida State University

- *Instructor*, LIS 5631 Health Information Sources (Graduate online synchronized course). Summer 2018.
- *Instructor*, LIS 5782 Database Management Systems (Graduate online synchronized course). Fall 2015 (SPCI Course Evaluation: 4.64/5.00), Fall 2016 (SPCI Course Evaluation: 4.54/5.00), Fall 2017, Fall 2018 (SPCI Course Evaluation: 4.78/5.00)
- *Instructor*, LIS 5788 Health Information System Management (Graduate online synchronized course). Fall 2016 (SPCI Course Evaluation: 5.00/5.00), Fall 2018, Spring 2023, Spring 2024
- *Instructor*, LIS 4761 Data Mining and Analytics (Undergraduate face-to-face course). Spring 2016 (SPCI Course Evaluation: 4.71/5.00), Spring 2017 (SPCI Course Evaluation: 4.33/5.00), Spring 2018 (SPCI Course Evaluation: 4.58/5.00), Spring 2019 (SPCI Course Evaluation: 4.53/5.00), Fall 2019, Spring 2020 (SPCI Course Evaluation: 4.55/5.00), Fall 2021, Spring 2022
- *Instructor*, LIS 5765 Data Mining and Analytics. Spring 2017 (SPCI Course Evaluation: 4.77/5.00), Spring 2018 (SPCI Course Evaluation: 4.56/5.00), Fall 2019 (SPCI Course Evaluation: 4.75/5.00), Spring 2020 (SPCI Course Evaluation: 4.80/5.00), Fall 2021

Columbia University, New York, NY

- *Teaching Assistant*, Computer Science W 4111 Introduction to Databases (Graduate course), instructor: L. Gravano. Fall 2008

New Jersey Institute of Technology, Newark, NJ

- *Instructor*, CS 103 Computer Science - Business Problems (Undergraduate course using Python programming, MySQL, and Excel), Fall 2012, Spring 2013, Fall 2013
- *Instructor*, CS 104 Computer Programming and Graph Problems (Undergraduate course using Java programming, and MySQL), Fall 2010, Fall 2011
- *Lab Instructor*, CS114A Computer Science II (Java Programming), Fall 2009, Spring 2010
- *Teaching Assistant*, CS 332 Principle of Operating System (Undergraduate course), CS 610 Data Structure (Graduate course), Spring 2011
- *Mentor*, Development team of the Neighborhood Auditing Tool, 2009

Emagination Computer Camps, Waltham, MA

- *Technology Counselor*, Linux, Programming, and Web Design, Summer 2008
- *Mentor*, Leadership program, Summer 2008

REFEREED PUBLICATIONS

Note: In my field, full papers published in the proceedings of the top-ranked, highly selective conferences such as AMIA Annual Symposium, BIBM, and MEDINFO are viewed as equally (if not more) important than journal articles. These are highly peer reviewed (with typical acceptance rates ranging from 15% to 30%) and are considered archival publications. Acceptance rates are indicated when they were made publicly available. It is the convention in my field to order author names by contribution, and put the primary author's name first. For publications funded by my NIH grant, my standard practice when working with students is to list the student's name(s) first, and the faculty advisor(s)/principal investigator last. An underscore indicates a student author supervised by me. An asterisk () denotes corresponding author; † denotes equal-contribution co-first authors; Underscore denotes students supervised by me.*

Edited Book

1. Bian J, Guo Y, He Z, Hu X. **Social Web and Health Research - Benefits, Limitations and Best Practice**. Springer International Publishing AG. 2019. Print ISBN: 978-3-030-14713-6. Online ISBN: 978-3-030-14714-3. DOI: [10.1007/978-3-030-14714-3](https://doi.org/10.1007/978-3-030-14714-3)

Referred Book Chapter

2. **He Z***. Understanding and Bridging the Language and Terminology Gap between Health Information Consumers and Health Professionals. In: Bian J., Guo Y., He Z., Hu X. (eds) *Social Web and Health Research*. Springer, Cham. 2019. pp. 103-121. DOI: [10.1007/978-3-030-14714-3_6](https://doi.org/10.1007/978-3-030-14714-3_6).

Editorial Articles (N = 6)

3. **He Z**, Zhang R, Diallo G, Huang Z, and Glicksberg BS. Editorial: Explainable artificial intelligence for critical healthcare applications. *Frontiers in Artificial Intelligence*. 6:1282800. doi: 10.3389/frai.2023.1282800. PMID: 37771610 PMCID: PMC10523392.
4. **He Z***, Tao C, Bian J, and Zhang R. Selected articles from the Third International Workshop on Semantics-Powered Data Mining and Analytics (SEPDA 2019). *BMC Medical Informatics and Decision Making*. 2020. 20 (Suppl 4): 315. PMID: 31391050. PMCID: PMC6686213
5. **He Z***, Bian J, Tao C, and Zhang R. Selected articles from the Third International Workshop on Semantics-Powered Data Analytics (SEPDA 2018). *BMC Medical Informatics and Decision Making*. 2019. 19 (Suppl 4):148. DOI: [10.1186/s12911-019-0855-3](https://doi.org/10.1186/s12911-019-0855-3). PMID: 31391050. PMCID: PMC6686213
6. Hao T*, Wong R, **He Z**, Xie H, Wong TL, and Wang FL. Natural Language Processing Empowered Mobile Computing. *Wireless Communication and Mobile Computing*. 2018. 2018: 1-2. DOI: [10.1155/2018/9130545](https://doi.org/10.1155/2018/9130545). (Editorial of the [special issue](#))
7. **He Z***, Tao C, Bian J, Zhang R, and Huang J. Introduction: selected extended articles from the 2nd International Workshop on Semantics-Powered Data Analytics (SEPDA 2017). *BMC Medical Informatics and Decision Making*. 2018. 18 (Suppl 2):56. DOI: 10.1186/s12911-018-0624-8. (SCIE, Impact Factor: 2.13)
8. **He Z***, Tao C, Bian J, Dumontier M, and Hogan W. Semantics-Powered Healthcare Engineering and Data Analytics. *Journal of Healthcare Engineering*. 2017;2017. PMID: 29214005. (Editorial, SCIE, Impact Factor: 1.26)

Refereed Journal Articles (N = 54)

9. Pang Y, Singh A, Chakraborty S, Charness N, Boot WR, **He Z**. Predicting adherence to gamified cognitive training using early phase game performance data: Towards a just-in-time adherence promotion strategy. *PLOS ONE*. 2024. 19(10):e0311279. doi: 10.1371/journal.pone.0311279. PMID: 39356682. PMCID: PMC11446454
10. Han W, Wang Z, Xiao M, **He Z**, Chu H, Lin L. Tipping point analyses for the between-arm correlation in an arm-based evidence synthesis. *BMC Medical Research Methodology*. 2024;24, 162. DOI: <https://doi.org/10.1186/s12874-024-02263-w>.

11. Singh A, Chakraborty S, **He Z**, Pang Y, Zhang S, Subedi R, Lustria MLA, Charness N, Boot WR. Predicting Adherence to Computer-based Cognitive Training Programs among Older Adults: Study of Domain Adaptation and Deep Learning. *JMIR Aging*. 2024;7:e53793. DOI: 10.2196/53793. PMID: 39283346.
12. Chowdhury S, Chen Y, Li P, Rajaganapathy S, Wen A, Ma X, Dai Q, Yu Y, Fu S, Jiang X, **He Z**, Sohn S, Liu X, Bielinski SJ, Chamberlain A, Cerhan J, Zong N. Stratifying Heart Failure Patients with Graph Neural Network and Transformer using EHR to Optimize Drug Response Prediction. *Journal of the American Medical Informatics Association*. 2024;31(8): 1671-1681.
13. **He Z**, Bhasuran B, Jin Q, Tian S, Hanna K, Shavor C, Arguello LG, Murray P, Lu Z. Quality of Answers of Generative Large Language Models vs Peer Patients for Interpreting Lab Test Results for Lay Patients: Evaluation Study. *Journal of Medical Internet Research*. 2024;26:e56655. doi: 10.2196/56655. PMID: 38630520.
14. Zhang S, Dieciuc M, Dilanchian A, Lustria MLA, Carr D, Charness N, **He Z**, Boot W. Adherence Promotion with Tailored Motivational Messages: Proof of Concept and Message Preferences in Older Adults. *Gerontology and Geriatric Medicine*. 2024. PMID: 38223550. PMCID: PMC10785722.
15. Gerido LH, Resnicow K, Stoffel EM, Cook-Deegan R, Cline M, Coffin A, Holdren J, Majumder MA, **He Z**. Big Advocacy, Little Recognition: The Hidden Work of Black Patients in Precision Medicine. *Journal of Community Genetics*. 2023; 14(657-665). PMID: 36993185; PMCID: PMC10055541
16. **He Z***, Pfaff E, Jingchuan G, Guo Y, Wu Y, Tao C, Stiglic G, Bian J. Enriching Real-world Data with Social Determinants of Health for Health Outcomes and Health Equity: Successes, Challenges, and Opportunities. *IMIA Yearbook in Medical Informatics*. 2023. 32(1):253-263. doi: 10.1055/s-0043-1768732. PMID: 38147867. PMCID: PMC10751148
17. Killian MO[†], Tian S[†], Xing A, Hughes D, Gupta D, Wang X, and **He Z**^{†*}. Prediction of Outcomes After Heart Transplantation in Pediatric Patients Using National Registry Data: Machine Learning Approaches. *JMIR Cardio*. 2023. 2023; 7:e45352. DOI:10.2196/45352. PMID: 37338974
18. Zhou S, Schutte D, Xing A, Chen J, Wolfson H, **He Z**, Yu F, Zhang R. Identification of Dietary Supplement Use from Electronic Health Records Using Transformer-based Language Models. *BMC Medical Informatics and Decision Making*. 2022. In press.
19. **Sheffler JL***, Kiosses D, **He Z**, Arjmandi BH, Akhavan NS, Klejc K, Naar S. Improving adherence to a Mediterranean ketogenic nutrition program for high-risk older adults: A pilot randomized trial. *Nutrients*. 2023. 15(10), 2329. doi: 10.3390/nu15102329.
20. **He Z***, Dieciuc M, Carr D, Chakraborty S, Singh A, Fowe IE, Zhang S, Lustria MLA, Terracciano A, Charness N, Boot WR. New Opportunities for the Early Detection and Treatment of Cognitive Decline: Adherence Challenges and the Promise of Smart and Person-Centered Technologies. *BMC Digital Health*. 2023. 1:7. doi: 10.1186/s44247-023-00008-1.
21. Singh A, Chakraborty S, **He Z**, Tian S, Zhang S, Lustria MLA, Charness N, Roque NA, Harrell ER, Boot WR. Deep Learning-based Predictions of Older Adults' Adherence to Cognitive Training to Support Training Efficacy. *Frontiers in Psychology*. 2022. 13:980778. doi: 10.3389/fpsyg.2022.980778.
22. **He Z***, Tian S, Singh A, Chakraborty S, Zhang S, Lustria MLA, Charness N, Roque N, Harrell E, Boot WR. A Machine-Learning Based Approach for Predicting Older Adults' Adherence to Technology-Based Cognitive Training. *Information Processing and Management*. 2022; 59(5): 103034.
23. Barrett LA, Xing A, Steidley E, Adam T, Zhang R, **He Z***. Assessing the Use of Prescription Drugs and Dietary Supplements in Obese Respondents in the National Health and Nutrition Examination Survey Data. *PLOS One*. 2022; 17(6): e0269241.
24. Carr D*, **Tian S**, **He Z**, Chakraborty S, Dieciuc M, Gray N, Agharazidermani M, Lustria ML, Dilanchian A, Zhang S, Charness N, Terracciano A, Boot W, Motivation to Engage in Aging Research: Are There Typologies and Predictors? *The Gerontologist*. 2022; 62(10):1466-1476.

25. Lu Y, Barrett LA, Lin R, Amith M, Tao C, **He Z***. Understanding Information Needs and Barriers to Accessing Health Information Across All Stages of Pregnancy: Systematic Review. *JMIR Pediatrics and Parenting*. 2022. 21;5(1):e32235.
26. Zhang Z, Kmoth L, Luo X, and **He Z**. User-Centered System Design for Communicating Clinical Laboratory Test Results: A Pilot Study. *JMIR Human Factors*. 2021; 8(4): e26017. (Acceptance rate: 25%). PMID: 34842529.
27. **He Z***, Erdengarsileng A, Xing A, Luo X, Charness N, Bian J. How the clinical research community responded to the COVID-19 pandemic: An analysis of the COVID-19 clinical studies in ClinicalTrials.gov. *JAMIA Open*. 2021 2021; 4(2): ooab032. PMID: 34056559. PMCID: PMC8083215.
28. Chen C, Zhang H, Guo Y, George TJ, Prosperi M, Hogan W, **He Z**, Shenkman E, Wang F, and Bian J*. Exploring the Feasibility of Using Real-World Data from a Large Clinical Data Research Network to Simulate Clinical Trials of Alzheimer's Disease. *npj Digital Medicine*. 2021; 4:84.
29. Killian MO*, Payrovnaziri SN, Gupta D, Desai D, and **He Z***. Machine learning-based prediction of re-hospitalization in pediatric organ transplantation recipients. *JAMIA Open*. 2021; 4(1): 1-10. PMID: 34075353. PMCID: PMC7952224.
30. Xie J, **He Z***, Burnett G, and Cheng Y. How do mothers exchange parenting-related information in online communities? A meta-synthesis. *Computer in Human Behavior*. 2021; 115: 105531. (SSCI, Impact Factor: 6.829)
31. Zhang Z*, Citardi D, Xing A, Luo X, Lu Y, **He Z**. Patient Challenges and Needs in Comprehending Lab Test Results: A Mixed-Methods Study. *Journal of Medical Internet Research*. 2020; 22(12). e18725. PMID: 33284117. PMCID: PMC7752528 (SCIE, Impact Factor: 5.43)
32. Qu J, Steppi A, Zhong D, Hao J, Wang J, Lung PY, Zhao T, **He Z**, and Zhang J*. Triage of documents containing protein interactions affected by mutations using an NLP based machine learning approach. *BMC Genomics*. 2020; 21; 773. PMID: 33167858. PMCID: PMC7654050. (SCIE, Impact Factor: 3.59)
33. Ismail NH, Du M, Liu N, **He Z**, and Hu X. A Deep Learning Approach for Identifying Cancer Survivors Living with Post-Traumatic Stress Disorder on Twitter. *BMC Medical Informatics & Decision Making*. 20 (suppl 4): 254. PMID: 33317508. PMCID: PMC7734710. (SCIE, Impact Factor: 2.317)
34. Xie J, Xie S, Cheng Y, and **He Z**. Beliefs and Information Seeking in Patients With Cancer in Southwest China: Survey Study. *JMIR Cancer*. 2020; 6(2):e16138. PMID: 32821061. PMCID: PMC7474411.
35. Zheng L[†], **He Z^{†*}**, Wei D, Keloth V, Fan JW, Lindermann L, Zhu X, Cimino JJ, and Perl Y. A review of auditing techniques for the Unified Medical Language System. *Journal of the American Medical Informatics Association*. 2020; 27(10): 1625-1638. PMID: 32766692. PMCID: PMC7566540 (SCI, Impact Factor: 4.497)
36. Payrovnaziri SN, Chen Z, Rengifo-Moreno P, Miller T, Bian J, Chen JH, Liu X, and **He Z***. Explainable Artificial Intelligence Models Using Real-World Electronic Health Records Data: a Systematic Scoping Review. *Journal of the American Medical Informatics Association*. 2020; 27(7): 1173-1185. PMID: 32417928. PMCID: PMC7647281. (SCI, Impact Factor: 4.497)
37. Yu B, **He Z***, Xing A, and Lustria ML. An Informatics Framework to Assess Consumer Health Language Complexity Differences: Proof-of-Concept Study. *Journal of Medical Internet Research*. 2020;22(5):e16795. PMID: 32436849. PMCID: PMC7273233. (SCIE, Impact Factor: 5.43)
38. **He Z***, Tang X, Bartley K, Yang X, Guo Y, George TJ, Charness N, Hogan W, and Bian J. Clinical Trial Generalizability Assessment in the Big Data Era: A Review. *Clinical and Translational Science*. 2020; 13(4): 675-684. DOI: 10.1111/cts.12764. PMID: 32058639. PMCID: PMC7359942. (SCIE, Impact Factor: 4.689)
39. **He Z**, Douglas WM, Barnes A, Jean-Louis G, Tang X, and Williams N*. Reporting results in U.S. clinical trials for obstructive sleep apnea and insomnia: how transparent are they? *Sleep Health*. 2020; 6(4): 529-533. PMID: 32179065. PMCID: PMC7486987 (SCIE, Impact Factor: 4.450)

40. Gerido LH, Tang X, Ernst B, Langford A, and **He Z***. Patient Engagement in Medical Research among Older Adults: Analysis of the Health Information National Trends Survey. *Journal of Medical Internet Research*. 2019;21(10):e16222. PMID: 31663860. PMCID: PMC6914241 (SCIE, Impact Factor: 5.43)
41. Zhang C, Biś D, Liu X, and **He Z***, Biomedical Word Sense Disambiguation with Bidirectional Long Short-Term Memory and Attention-based Neural Networks. *BMC Bioinformatics*. 2019; 20: 502. PMID: 31787096. PMCID: PMC6886160 (SCIE, Impact Factor: 3.242)
42. He X, Zhang R, Rizvi R, Vasilakes J, Yang X, Guo Y, **He Z**, Prosperi M, Huo J, Alpert J, and Bian J*. ALOHA: Developing an Interactive Graph-based Visualization for Dietary Supplement Knowledge Graph through User-centered Design. *BMC Medical Informatics and Decision Making*. 2019; 19 (Suppl 4): 150. PMID: 31391091. PMCID: PMC6686235. (SCIE, Impact Factor: 2.32)
43. Keloth VK*, **He Z**, Elhanan G, and Geller J. Alternative Classification of Identical Concepts in Different Terminologies: Different Ways to View the World. *Journal of Biomedical Informatics*. 2019; 94. 103193. DOI: 10.1016/j.jbi.2019.103193. PMID: 31048072. PMCID: PMC7050413. (SCI, Impact Factor: 6.317)
44. Lung PY, **He Z**, Zhao T, Disa Yu, and Zhang J*. Extracting chemical-protein interactions from literature using sentence structure analysis and feature engineering. *Database: The Journal of Biological Databases and Curation*. 2019. 2019:1-8. PMID: 30624652. PMCID: PMC6323317. (SCIE, Impact Factor: 3.451)
45. Lossio-Ventura JA, Hogan W, Modave F, Guo Y, **He Z**, Yang X, Zhang H, and Bian J*. OC-2-KB: Integration crowdsourcing into an obesity and cancer knowledge base curation system. *BMC Medical Informatics and Decision Making*. 2018. 18 (Suppl 2):55. (SCIE, Impact Factor: 2.32)
46. Chen Z†, **He Z†***, Liu X, and Bian J. Evaluating semantic relations in neural word embeddings using biomedical and general domain knowledge bases. *BMC Medical Informatics and Decision Making*. 18 (Suppl 2) :65. PMID: 30066651. PMCID: PMC6069806. (SCIE, Impact Factor: 2.32)
47. **He Z†***, Bian J†, Carretta HJ, Lee J, Hogan WR, Shenkman E, and Charness N. Prevalence of Multiple Chronic Conditions Among Older Adults in Florida and the United States: Comparative Analysis of the OneFlorida Data Trust and National Inpatient Sample. *Journal of Medical Internet Research*. 2018; 20(4):e137. PMID: 29650502. PMCID: PMC5920146. (SCIE, Impact Factor: 5.43)
48. Amith MF†, **He Z†**, Bian J, Lossio-Ventura JA, and Tao C*. Assessing the Practice of Ontology Evaluation for Biomedical Ontologies in BioPortal: Gaps and Opportunities. *Journal of Biomedical Informatics*. 2018. In press. DOI: 10.1016/j.jbi.2018.02.010. PMID: 29462669. PMCID: PMC5882531. (SCI, Impact Factor: 2.88, 5-Year Impact Factor: 6.317)
49. Gu H*, **He Z**, Duo W, Elhanan G, and Chen Y. Validating UMLS Semantic Type Assignments Using SNOMED CT Semantic Tags. *Methods of Information in Medicine*. 2018: 57(1): 43-53. DOI: 10.3414/ME17-01-0120. PMID: 29621830. PMCID: PMC6545922. (SCI, Impact Factor: 2.176)
50. Bian J, Zhao Y, Salloum RG, Guo Y, Wang M, Prosperi M, Zhang H, Du X, Ramirez-Diaz LJ, **He Z**, Sun Y*. Using social media data to understand the impact of promotional information on laypeople's discussions: the case of Lynch syndrome. *Journal of Medical Internet Research*. 2017;19(12):e414. DOI: 10.2196/jmir.9266. PMID: 29237586. PMCID: PMC5745354. (SCIE, Impact Factor: 5.43)
51. **He Z***, Chen Z, Oh S, Hou J, and Bian J. Enriching consumer health vocabulary through mining a social Q&A site: a similarity-based approach. *Journal of Biomedical Informatics*. 2017;69:75-85. PMID: 28359728. PMCID: PMC5488691. (SCI, Impact Factor: 6.317)
52. Park MS†, **He Z†***, Chen Z, Oh S, and Bian J. Consumer's Use of UMLS Concepts on Social Media: Diabetes-Related Textual Data Analysis in Blog and Social Q&A Sites. *JMIR Medical Informatics*. 2016; 4(4):e41. PMID: 27884812 (SCIE, Impact Factor: 2.96)
53. Bian J*, Yoshigoe K, Hicks A, Yuan J, **He Z**, Xie M, Guo Y, Prosperi M, and Modave F. Mining Twitter to assess the public perception of the "Internet of things". *PLOS ONE*. 2016;11(7): e0158450. PMID: 27391760. PMCID: PMC4938510 (SCI, Impact Factor: 3.240)

54. Ochs C*, **He Z**, Geller J, and Perl Y. A Structural Meta-ontology for Family-Based Quality Assurance of BioPortal Ontologies. *Journal of Biomedical Informatics*. 2016;61:63-76. PMID: 26988001. PMCID: PMC4893909. (SCI, Impact Factor: 2.88, 5-Year Impact Factor: 6.317)
55. **He Z***, Ryan P, Hoxha J, Wang S, Carini S, Sim I, and Weng C. Multivariate analysis of the population representativeness of related clinical studies. *Journal of Biomedical Informatics*. 2016;60:66-76. PMID: 26820188. PMCID: PMC4837055. (SCI, Impact Factor: 6.317) ([*Clinical Research Informatics 2016 Year in Review*](#))
56. Hoxha J, Chandar P, **He Z**, and Weng C*. DREAM: Classification Scheme for Dialog Acts in Clinical Research Data Query Mediation. *Journal of Biomedical Informatics*. 2016;59:89-101. PMID: 26657707. PMCID: PMC4792720. (SCI, Impact Factor: 6.317)
57. Gu H*, Chen Y, **He Z**, Halper M, and Chen L. Quality Assurance of UMLS Semantic Type Assignments Using SNOMED CT Hierarchies. *Methods of Information in Medicine*. 2016; 55(2):158-165. PMID: 25925776. PMCID: PMC6537875. (SCI, Impact Factor: 2.176)
58. **He Z***, Geller J, and Chen Y. A comparative analysis of the density of the SNOMED CT conceptual content for semantic harmonization. *Artificial Intelligence in Medicine*. 2015;64(1):29-40. PMID: 25890688. PMCID: PMC4457611 (SCI, Impact Factor: 5.326)
59. **He Z**, Carini S, Sim I, and Weng C*. Visual aggregate analysis of eligibility features of clinical trials. *Journal of Biomedical Informatics*. 2015. 54:241-255 PMID: 25615940. PMCID: PMC4408222. (SCI, Impact Factor: 6.317)
60. **He Z***, Morrey CP, Perl Y, Elhanan G, Chen L, Chen Y, and Geller J. Sculpting the UMLS Refined Semantic Network. *Online Journal of Public Health Inform*, 2014. 6(2):e181. PMID: 25422719. PMCID: PMC4235323.
61. Agrawal A*, **He Z**, Wei D, Halper M, Perl Y, and Elhanan G. The readiness of SNOMED problem list Concepts for meaningful use of EHRs. *Artificial Intelligence in Medicine*, 2013. 58(2):73-80. PMID: 23602702. (SCI, Impact Factor: 5.326)
62. Geller J, **He Z***, Perl Y, Morrey CP, and Xu J. Rule-based support system for multiple UMLS semantic type assignments. *Journal of Biomedical Informatics*. 2013. 46(1):97-110. PMID: 23041716. PMCID: PMC3563942. (SCI, Impact Factor: 6.317)

Refereed Conference Proceeding Papers (N=70)

63. Dehkordi MKH, Zhou S, Perl Y, Deek FP, Einstein AJ, Elhanan G, **He Z**, Liu H. Enhancing Patient Comprehension: An Effective Sequential Prompting Approach to Simplifying EHRs Using LLMs. *2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2024)*. In press.
64. Bhasuran B, Liu Y, Prosperi M, MacDonell K, Naar S, **He Z**. Predicting HIV Diagnosis Among Emerging Adults Using Electronic Health Records and Health Survey Data in All of Us Research Program. *2024 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2024)*. In press.
65. Liu W, **He Z**, Huang X, Time Matters: Examine Temporal Effects on Biomedical Language Models. *AMIA 2024 Annual Symposium*. In press.
66. Han W, Bhasuran B, Muse V, Brunak S, Lin L, Hanna K, Huang Y, Bian J, **He Z**. Assessing the Seasonality of Lab Tests Among Patients with Alzheimer's Disease and Related Dementias in OneFlorida Data Trust. *AMIA 2024 Annual Symposium*. In press.
67. Shubo Tian, Pengfei Yin, Hansi Zhang, Arslan Erdengasileng, Jiang Bian and Zhe He. Parsing Clinical Trial Eligibility Criteria for Cohort Query by a Multi-Input Multi-Output Sequence Labeling Model. *2023 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2023)*. December 5-8, 2023. Istanbul, Turkey. 2023. pp. 4426-4430. DOI: 10.1109/BIBM58861.2023.10385876
68. Alex Moerschbacher and Zhe He. Building Prediction Models for 30-Day Readmissions Among ICU Patients Using Both Structured and Unstructured Data in Electronic Health Records. *2023 IEEE*

- International Conference of Bioinformatics and Biomedicine (BIBM 2023)*. December 5-8, 2023. Istanbul, Turkey. pp. 4368-4373. DOI: 10.1109/BIBM58861.2023.10385612
69. Bhate NJ, Mittal A, **He Z**, Luo X. Zero-shot Learning with Minimum Instruction to Extract Social Determinants and Family History from Clinical Notes using GPT Model. *2023 IEEE International Conference on Big Data (IEEE Big Data 2023)*. In press.
 70. Rahman MI, Emdad FB, Islam CM, **He Z**. Uncovering the Interplay of Demographics and Healthcare Provider Availability on CMS HCC Risk Scores for Disabled Beneficiaries. *The 11th edition of the International Conference on e-Health and Bioengineering (BHE 2023). IFMBE Proceedings Series*. In press.
 71. Feng Q, Yuan J, Emdad FB, Hanna K, He X, **He Z**. Can Attention Be Used to Explain EHR-Based Mortality Prediction Tasks: A Case Study on Hemorrhagic Stroke. *The 14th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (ACM BCB 2023)*. pp. 1-6.
 72. He Z, Tian S, Erdengasileng A, Hanna K, Gong Y, Luo X, Zhang Z, Lustria MLA. Annotation and Information Extraction of a Consumer-Friendly Health Website for Enhancing Laboratory Test Reporting in Patient Portals. *AMIA 2023 Annual Symposium Proceedings*. 2023; 2023: 407-416.
 73. Pang Y, Singh A, Chakraborty S, Charness N, Boot WR, **He Z**. Using Game Performance Data to Predict Adherence to Gamified Cognitive Training. *The 7th International Workshop on Semantics-Powered Health Data Analytics (SEPDA 2023)*. June 12-15, 2023. Portoroz, Slovenia. In press.
 74. Wang X, Gupta D, Killian M, **He Z**. Benchmarking Transformer-Based Models for Identifying Social Determinants of Health in Clinical Notes. *The 11th IEEE International Conference on Healthcare Informatics (ICHI 2023)*. June 26-29, 2023. Houston, TX. In press.
 75. Emdad FB, Tian S, Nandy E, Hanna K, **He Z**. Towards Interpretable Multimodal Predictive Models for Early Mortality Prediction of Hemorrhagic Stroke Patients. *AMIA 2023 Informatics Summit*. 2023: 128–137. PMID: 37350906. PMCID: PMC10283097.
 76. Erdengasileng A, Tian S, Green S, Naar S, **He Z**. Using Twitter Data Analysis to Understand the Perceptions, Awareness, and Barriers to the Wide Use of Pre-Exposure Prophylaxis in the United States. *2022 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2022)*. 2022. Las Vegas, NV, USA, 2022, pp.3000-3007. doi: 10.1109/BIBM55620.2022.9995568.
 77. Shiju A, **He Z**. Classifying Drug Ratings Using User Reviews with Transformer-Based Language Models. *2022 IEEE 10th International Conference on Healthcare Informatics (ICHI 2022)*. pp. 163-169
 78. **He Z**, Tian S, Erdengarsileng A, Charness N, Bian J. Temporal Subtyping of Alzheimer's Disease Using Medical Conditions Preceding Alzheimer's Disease Onset in Electronic Health Records. *AMIA 2022 Informatics Summit*. March 21-24, 2022. Chicago, IL. 2022: 226-235. PMCID: PMC9285183.
 79. Yin P, Zhang H, He X, Diller M, Li Q, Tian S, Erdengarsileng A, **He Z**, Tao C, Bian J. Toward Formal Computable Representation of Clinical Trial Eligibility Criteria for Alzheimer's Disease. *The 6th International Workshop on Semantics-Powered Health Data Analytics (SEPDA 2021)*. November 3-5, 2021. Virtual. In press.
 80. Tian S, Erdengarsileng A, Yang X, Guo Y, Wu Y, Zhang J, Bian J, and **He Z**. Transformer-Based Named Entity Recognition for Parsing Clinical Trial Eligibility Criteria. *The 12th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (BCB 2021)*. Virtual. August 1-4, 2021. pp.1-4.
 81. Zhou S, Schutte D, Xing A, Chen J, Wolfson J, He Z, Yu F, Zhang R. Identification of Dietary Supplement Use from Electronic Health Records Using Transformer-based Language Models. *2021 IEEE International Conference on Healthcare Informatics (ICHI 2021)*, 2021. pp.513-514.
 82. Lu Y, Zhang Z, Min K, Luo X, **He Z**. Pregnancy-Related Information Seeking in Online Forums: A Qualitative Study. *iConference 2021*. March 28-31, 2021. Beijing, China. pp. 18-36. (Acceptance rate: 31%; 32/103 full paper submissions)

83. Payrovnaziri SN, Xing A, Salman S, Liu X, Bian J, **He Z**. Assessing the Impact of Imputation on the Interpretations of Prediction Models: A Case Study on Mortality Prediction for Patients with Acute Myocardial Infarction. *AMIA 2021 Informatics Summit*. 2021: 465-475. PMID: 34457162.
84. Luo X, Gandhi P, Tang M, Zhang Z, and **He Z**. Attention Mechanism with BERT for Content Annotation and Categorization of Pregnancy-Related Questions on a Community Q&A Site. *2020 IEEE International Conference on Bioinformatics and Biomedicine*. 2020: 1077-1081. PMCID: PMC7929090.
85. Bompelli A, Li J, Xu Y, Wang N, Adam T, **He Z**, and Zhang R. Deep Learning Approaches to Extract Eligibility Criteria on Dietary Supplements Clinical Trials. *AMIA 2020 Annual Symposium*; 2020; 243-252. PMID: 33936396.
86. Lu Y, Luo X, Zhang Z, and **He Z**. Retrieving Lab Test Related Questions from Social QA Sites By Combining Shallow Features and Deep Representations. *AMIA 2020 Annual Symposium*; 2020; 717-726. PMID: 33936453.
87. Li Q, Guo Y, **He Z**, Zhang H, George TJ, and Bian J. Using Real-World Data to Rationalize Clinical Trials Eligibility Criteria: a case study on Alzheimer's Disease and Donepezil. *AMIA 2020 Annual Symposium*. 2020: 717-726. PMID: 33936446.
88. Salman S, Payrovnaziri SN, Liu X, Rengifo-Moreno P, and **He Z**. DeepConsensus: Consensus-based Interpretable Deep Neural Networks with Application to Mortality Prediction. *2020 International Joint Conference on Neural Networks (IJCNN)*. Glasgow, United Kingdom, 2020, pp. 1-8, doi: 10.1109/IJCNN48605.2020.9206678. PMID: 33101768
89. **He Z**, Barrett LA, Rizvi RF, Tang X, Payrovnaziri SN, and Zhang R. Assessing the Use and Perception of Dietary Supplements Among Obese Patients with National Health and Nutrition Examination Survey. *AMIA 2020 Informatics Summit*. March 23-26, 2020. Houston, TX. 2020; 231-40. PMID: 32477642
90. Ismail NH, Liu N, Du M, **He Z**, and Hu X. Using Deep Neural Network to Identify Cancer Survivors Living with Post-Traumatic Stress Disorder on Social Media. *The 4th International Workshop on Semantics-Powered Data Mining and Analytics (SEPDA 2019)*. October 15, 2019. Auckland, New Zealand. CEUR Workshop Proceedings: 2427. pp. 48-52.
91. Ismail NH, Du M, Martinez D, and **He Z**. Multivariate Multi-step Deep Learning Time Series Approach in Forecasting Parkinson's Disease Future Severity Progression. *The 10th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (BCB 2019)*. Niagara Falls, NY. pp. 383-389. (Acceptance rate: 39%)
92. Li Q[†], **He Z**[†], Guo Y[†], Zhang H, George J T, Hogan W, Charness N, Bian J, Assessing the Validity of a *a priori* Patient-Trial Generalizability Score using Real-world Data from a Large Clinical Data Research Network: A Colorectal Cancer Clinical Trial Case Study. *AMIA 2019 Annual Symposium*. pp.1101-1110. ([†]:Co-first authors) (*2nd Place of the Student Paper Competition*)
93. Payrovnaziri SN, Barrett LA, Bis D, Bian J, and **He Z**. Enhancing Prediction Models for One-Year Mortality in Patients with Acute Myocardial Infarction and Post Myocardial Infarction Syndrome. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21;264:273-277. doi: 10.3233/SHTI190226. PMID: 31437928
94. Zhang Z, **He Z**, Lu Y, Kou Y, Wu D. Understanding Patient Information Needs about their Clinical Laboratory Results: A Study of Social Q&A Site. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21;264:1403-1407. doi: 10.3233/SHTI190458. PMID: 31438157
95. Rizvi RF, Wang Y, Nguyen T, Vasilakes J, **He Z**, and Zhang R. Analyzing Social Media Data to Understand Consumers' Information Needs on Dietary Supplements. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*. 2019 Aug 21;264:323-327. doi: 10.3233/SHTI190236. PMID: 31437938.
96. Modave F, Zhao Y, Krieger J, **He Z**, Guo Y, and Bian J. Understanding Perceptions and Attitudes in Breast Cancer Discussions on Twitter. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in*

- Health Technology and Informatics*. 2019 Aug 21;264:1293-1297. doi: 10.3233/SHTI190435. PubMed PMID: 31438134.
97. Barrett LA, Payrovnaziri SN, Bian J, and **He Z**. Building Computational Models to Predict One-Year Mortality in ICU Patients with Acute Myocardial Infarction and Post Myocardial Infarction Syndrome. *AMIA 2019 Informatics Summit*; 2019:407-416. PMID: 31258994. PMCID: PMC6568097.
 98. **He Z**, Rizvi RF, Yang F, Adam TJ, and Zhang R. Comparing the Study Populations in Dietary Supplement and Drug Clinical Trials for Metabolic Syndrome Related Disorders. *AMIA 2019 Informatics Summit*; 2019:799-808. PMID: 31259037. PMCID: PMC6568097
 99. Biš D, Zhang C, Liu X, and **He Z**. Layered Multistep Bidirectional Long Short-Term Memory Networks for Biomedical Word Sense Disambiguation. *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)*. December 3-6, 2018. Madrid, Spain. pp.313-320. (Acceptance rate: 19.6%)
 100. **He Z**, Keloth VK, Chen Y, and Geller J. Extended Analysis of Topological-Pattern-Based Ontology Enrichment. *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)*. December 3-6, 2018. Madrid, Spain. pp.1641-1648. PMID: 30854243. PMCID: PMC6402505
 101. He X, Zhang R, Rizvi R, Vasilakes J, Yang X, Guo Y, **He Z**, and Bian J. Prototyping an Interactive Visualization of Dietary Supplement Knowledge Graph. *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)*. December 3-6, 2018. Madrid, Spain. pp. 1649-1652.
 102. Keloth VK, **He Z**, and Geller J. Leveraging Horizontal Density Differences Between Ontologies to Identify Missing Child Concepts: A Proof of Concept. *AMIA 2018 Annual Symposium Proceedings*. November 3-8, 2018. San Francisco, CA. pp. 644-653. PMID: 30815106. PMCID: PMC6371323
 103. Zhang H, **He Z**, He X, Guo Y, Nelson DR, Modave F, Wu Y, Hogan W, and Bian J. Computable Eligibility Criteria through Ontology-Driven Data Access: A Case Study of Hepatitis C Virus Trials. *AMIA 2018 Annual Symposium Proceedings*. pp. 1601-1610. PMID: 30815206. PMCID: PMC6371316 ([Student Paper Competition Finalist](#))
 104. Lossio-Ventura JA, Hogan W, Modave F, Guo Y, **He Z**, Hicks A, and Bian J, OC-2-KB: A software pipeline to build an evidence-based obesity and cancer knowledge base. *Proceedings of the 2017 IEEE International Conference on Bioinformatics and Biomedicine*. November 13-16, 2017. Kansas City, MO. pp. 1284-1287. DOI: 10.1109/BIBM.2017.8217845
 105. Yu B, and **He Z**. Exploratory Textual Analysis of Consumer Health Languages for People Who are D/deaf and Hard of Hearing. *Proceedings of the 2017 IEEE International Conference on Bioinformatics and Biomedicine*. November 13-16, 2017. Kansas City, MO. pp. 1288-1291. DOI: 10.1109/BIBM.2017.8217846
 106. Chen Z, **He Z**, Liu X, and Bian J. An Exploration of Semantic Relations in Neural Word Embeddings Using Extrinsic Knowledge. *Proceedings of the 2017 IEEE International Conference on Bioinformatics and Biomedicine*. November 13-16, 2017. Kansas City, MO. pp.1246-1251. DOI: 10.1109/BIBM.2017.8217836
 107. **He Z**, Perl Y, Elhanan G, Geller J, and Bian J. Auditing the extents of top semantic types of the UMLS Semantic Network. *Proceedings of 2017 IEEE International Conference on Bioinformatics and Biomedicine*. November 13-16, 2017. Kansas City, MO. pp. 1262-1269. PMID: 29375930. DOI: [10.1109/BIBM.2017.8217840](https://doi.org/10.1109/BIBM.2017.8217840)
 108. Qu J, Steppi A, Hao J, Wang J, Lung PY, Zhao T, **He Z**, and Zhang J. Mining protein interactions affected by mutations using a NLP based machine learning approach. *BioCreative VI Challenge and Workshop*. October 18-20, 2017. Bethesda, MD. pp. 132-135. (Invited to give an oral presentation at [BioCreative VI](#) Track 4: Mining protein interactions and mutations for precision medicine)
 109. Lung PY, Zhao T, **He Z**, and Zhang J. Extracting chemical-protein interactions from literature. *BioCreative VI Challenge and Workshop*. October 18-20, 2017. Bethesda, MD. pp. 160-163. (Invited to give an oral presentation at [BioCreative VI](#) Track 5: Text mining chemical protein interactions)

110. **He Z**, Gonzalez-Izquierdo A, Denaxas S, Sura A, Guo Y, Hogan WR, Shenkman E, and Bian J. Comparing and Contrasting A Priori and A Posteriori Generalizability Assessment of Clinical Trials on Type 2 Diabetes Mellitus. *AMIA 2017 Annual Symposium Proceedings*. November 4-8, 2017. Washington DC. pp.849-858. (*Distinguished Paper Award, three awards were selected from 105 accepted papers and 266 regular paper submissions*)
111. **He Z**, Chen Y, and Geller J. Perceiving the Usefulness of National Cancer Institute Metathesaurus for Enriching NCI with Topological Patterns. *The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)*. August 21-25, 2017. Hangzhou, China. *Studies in Health Technology and Informatics*. 2017;245: 863-867. PMID: 29295222. DOI:10.3233/978-1-61499-830-3-863
112. Lossio-Ventura JA, Hogan WR, Modave F, Hicks A, Guo Y, **He Z**, and Bian J. Towards an Obesity-Cancer Knowledge Base: Biomedical Entity Identification and Relation Detection. *Proceedings of the 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2016)*. December 15-18, 2016. Shenzhen, China. pp. 1081-1088. DOI: 10.1109/BIBM.2016.7822672. PMID: 28503356
113. **He Z**, Chen Z, and Bian J. Analysis of Temporal Constraints in Qualitative Eligibility Criteria of Cancer Clinical Studies. *Proceedings of the 2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2016)*. December 15-18, 2016. Shenzhen, China. pp. 717-722. PMID: 29263940. PMCID: PMC5733789. DOI: 10.1109/BIBM.2016.7822607. (Acceptance rate: 19%)
114. **He Z**, Chen Y, de Coronado S, Piskorski K, and Geller J. Topological-Pattern-based Recommendation of UMLS Concepts for National Cancer Institute Thesaurus. *Proceedings of AMIA 2016 Annual Symposium*. November 12-16, 2016. Chicago, IL. pp. 618-627. PMID: 28269858
115. **He Z**, Chen Z, George TJ, Lipori G, and Bian J. Assessing the Population Representativeness of Colorectal Cancer Treatment Clinical Trials. *Proceedings of the 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2016)*. August 16-20, 2016. Orlando, FL. pp.2970-2973. PMID: 28268936. PMCID: PMC5727892 (Acceptance rate for oral presentations: 20%)
116. **He Z**, and Geller J. Preliminary Analysis of Difficulty of Importing Pattern-Based Concepts into the National Cancer Institute Thesaurus. *Studies in Health Technology and Informatics*. 2016. Volume 288: Exploring the Complexity in Health: An Interdisciplinary Systems Approach: 389-393. Medical Informatics Europe 2016 (MIE 2016). August 28 - September 2, 2016. Munich, Germany. PMID: 27577410. PMCID: PMC5785234
117. **He Z***, Park MS*, and Chen Z. UMLS-Based Analysis of Medical Terminology Coverage for Tags in Diabetes-Related Blogs (*: equal contribution). *Proceedings of iConference 2016*. March 20-23, 2016. Philadelphia, PA. (Acceptance rate: 30%) (*Runner up of the Most Interesting Preliminary Results Paper Award, Top 5*)
118. **He Z**, Charness N, Bian J, and Hogan WR. Assessing the Comorbidity Gap between Clinical Studies and Prevalence in Elderly Patient Populations. *Proceedings of 2016 IEEE International Conference on Biomedical and Health Informatics (BHI 2016)*. February 24-27, 2016. Las Vegas, NV. pp.136-139. PMID: 27738664. PMCID: PMC5058342
119. Zayas C, **He Z**, Yuan J, Maldonado-Molina M, Hogan WR, Modave F, and Bian J. Examining Healthcare Utilization Patterns of Elderly and Mid-Aged Adults in the United States. *Proceedings of the 29th International FLAIRS Conference (FLAIRS-29)*. May 16-18, 2016. Key Largo, FL. pp.361-366. PMID: 27430035.
120. **He Z**, Chandar P, Ryan P, and Weng C. Simulation-based Evaluation of the Generalizability Index for Study Traits. *AMIA Annual Symposium Proceedings*. 2015;594-603. PMID: 26958194. (*Distinguished Paper Award of AMIA 2015*)
121. Chandar P, Yaman A, Hoxha J, **He Z**, and Weng C. Similarity-based Recommendation of New Concepts to a Terminology. *AMIA Annual Symposium Proceedings*. 2015;386-395. PMID: 26958170
122. **He Z**, Wang S, Borhanian E, and Weng C. Assessing the Population Representativeness of Type 2 Diabetes Trials by Combining Public Data from ClinicalTrials.gov and NHANES. The 15th World

- Congress on Health and Biomedical Informatics (MEDINFO 2015). August 19-23, 2015. Sao Paulo, Brazil. *Studies in Health Technology and Informatics*, 2015;216:569-73. PMID: 26262115
123. **He Z** and Weng C. Predicting New Target Conditions for Drug Retesting Using Temporal Patterns in Clinical Trials: A Proof of Concept. *AMIA Joint Summits on Translational Science Proceedings*. 2015;445-9. PMID: 26306283. (*Student Paper Competition Finalist*)
 124. **He Z**, Carini S, Hao T, Sim I, and Weng C. A Method for Analyzing Commonalities in Clinical Trial Target Populations. *AMIA Annual Symposium Proceedings*, 2014:1777-1786.
 125. Weng C, Yaman A, Lin K, and **He Z**. Trend and Network Analysis of Common Eligibility Features for Cancer Trials in ClinicalTrials.gov. *2014 International Conference for Smart Health*, July 10th – 11th 2014, Beijing, China. *Lecture Notes in Computer Science*. Vol. 8549:130-141.
 126. **He Z**, Geller J, and Elhanan G. Categorizing the Relationships between Structurally Congruent Concepts from Pairs of Terminologies for Semantic Harmonization. *AMIA Joint Summits on Translational Science Proceedings*, 2014: 48-53.
 127. **He Z**, Ochs C, Agrawal A, Perl Y, Zeginis D, Tarabanis K, Elhanan G, Halper M, Noy N and Geller J. A Family-Based Framework for Supporting Quality Assurance of Biomedical Ontologies in BioPortal. *AMIA Annual Symposium Proceedings*. 2013: 581-90. PMID: 24551360. (Selected as an important paper in “*Informatics Year in Review*” at AMIA 2014 Annual Symposium)
 128. **He Z**, Ochs C, Solatova L, Perl Y, Arabandi S, and Geller J. Auditing Redundant Import in Reuse of a Top Level Ontology for the Drug Discovery Investigations Ontology. *ICBO 2013 Workshop on Vaccine and Drug Ontology Studies*, July 7th 2013. Montreal, QC, Canada. *CEUR Workshop Proceedings*. Vol. 1061.
 129. Ochs C, **He Z**, Perl Y, Arabandi S, Geller J, and Halper M. Choosing the Granularity of Abstraction Networks for Orientation and Quality Assurance of the Sleep Domain Ontology. *The 4th International Conference on Biomedical Ontology*, July 8th -9th 2013. Montreal, QC, Canada. *CEUR Workshop Proceedings*. Vol. 1060: 84-9.
 130. **He Z**, Halper M, Perl Y, and Elhanan G. Clinical Clarity Versus Terminological Order - the Readiness of SNOMED CT Concept Descriptors for Primary Care. *Proceedings of CIKM 2012 Workshop on Managing Interoperability and Complexity in Health Systems*, Maui, HI. October 29th 2012. pp. 1-6.
 131. Gu H, Elhanan G, Halper M, and **He Z**. Questionable Relationship Triples in the UMLS. *Proceedings of 2012 IEEE-EMBS International Conference on Biomedical and Health Informatics*, Shenzhen, China, January 2nd – 7th. 2012. pp. 713–716.

Peer Reviewed Panels/Workshops

132. **He Z**, Li Y, Zong N, Zhang R, Lu Z, Jin Q, Peng Y, Chen A, Bian J. AMIA KDDM and KRS Working Groups Collaborative Workshop: Empowering Healthcare with Knowledge-Augmented Large Language Models -- Innovations and Applications. *Workshop at AMIA 2024 Annual Symposium*, November 9-13, 2024. San Francisco, CA. (Collaborative Workshop)
133. **He Z**, Li Y, Guo J, Gupta D, Moll K, Klasky H, Wu Y, Hu H, AMIA KDDM Working Group Collaborative Workshop: Enriching Electronic Health Records with Social Determinants of Health to Improve Outcomes and Health Equity. Workshop at AMIA 2024 Informatics Summit, March 2024, Boston, MA.
134. Stiglic G, Gosak L, Kocbek P, Kopitar L, Chakraborty P, Meyer P, **He Z**, Bian J. Improving Primary Healthcare Workflow Using Extreme Summarization of Scientific Literature Based on Generative AI. *KDD 2023 Workshop on Applied Data Science for Healthcare (KDD DSHealth 2023)*.
135. Yao L, Li Y, **He Z**, and Zhang Y, Which Comes First: High-Quality Clinical Data or Reliable AI-based Applications - A Collaborative Workshop. *AMIA 2023 Informatics Summit*. March 13-16, 2023, Seattle, WA2. (Collaborative Workshop)

136. Yao L, Li Y, **He Z**, and Wang F, Bridging the Gap Between Data and Knowledge to Improve Deep Learning Models. *AMIA 2021 Annual Symposium*. October 30-November 3, 2021, San Diego, CA. (Collaborative Workshop)
137. **He Z**, Zhang R, Cornet R, Bodenreider O, and Zhu X. Developing Careers in Biomedical and Health Informatics. *MEDINFO 2019*. August 26-30, 2019, Lyon, France.
138. **He Z**, Wei D, Bian J, Liu J, and Gong Y. Advancing Health Informatics Education and Health IT Workforce Development through Interdisciplinary Collaboration. *The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)*. August 21-25, 2017. Hangzhou, China.
139. Weng C, **He Z**, Mollie McKillop, and Joseph Romano. Data Driven Clinical Research Generalizability Assessment and Improvement. *The 8th Annual Mid-Atlantic Healthcare Informatics Symposium*, October 23, 2015, Philadelphia, PA.

Peer Reviewed Conference Abstracts

140. **He Z**, Kale D, Bhasuran B, Zhang Z, Lustria MLA, Hanna K, Granville L, Luo X. LabGenie-A Patient-Facing AI-Powered Application for Enhancing Older Adults' Comprehension of Laboratory Test Results. AMIA 2025 Informatics Summit, March 10-13, 2025. Pittsburgh, PA.
141. Bhasuran B, Jin Q, Wang X, Hanna K, Lu Z, **He Z**. LabQAR: A Manually Curated Dataset for Question Answering on Laboratory Test Reference Ranges and Interpretation. AMIA 2025 Informatics Summit, March 10-13, 2025. Pittsburgh, PA.
142. Bhasuran B, Jin Q, Tian S, Hanna K, Lu Z, **He Z**. Evaluating the Impact of Lab Test Results on Large Language Models Generated Differential Diagnoses from Clinical Case Vignettes. AMIA 2024 Annual Symposium, November 9-13, 2024. San Francisco, CA.
143. **He Z**, Bhasuran B, Jin Q, Tian S, Hanna K, Lu Z, Using Informatics and Generative AI to Support Older Adults' Understanding of Lab Test Results. Presented at "East Meets West: Application of AI to Support Healthy Aging and Effective Care in Diverse Cultures" symposium of the Gerontological Society of America (GSA) 2024 Annual Scientific Meeting (GSA 2024), November 13-16, 2024, Seattle, WA.
144. Emdad FB, Stiglic G, **He Z**. Evaluating AI Reporting Guideline Adherence of Medical AI Research Using Large Language Model-based Systems. Poster presented at AMIA 2024 Informatics Summit, March 2024, Boston, MA.
145. **He, Z**, Bhasuran, B., Wang, X., Gupta, D., & Killian, M. O.. Predicting Organ Rejections for Pediatric Heart Transplantations with a Combined Use of Transplant Registry Data and Electronic Health Records. Poster presented at AMIA 2024 Informatics Summit, March 2024, Boston, MA.
146. **He, Z**, Bhasuran, B., Wang, X., Gupta, D., & Killian, M. O. (June, 2024). Predicting Organ Rejections for Pediatric Heart Transplantations with a Combined Use of Transplant Registry Data and Electronic Health Records. American Transplant Congress, Philadelphia, PA. (**Best Poster Award in Pediatrics**)
147. **He Z**, Shubo Tian, Arslan Erdengasileng, Mia Liza A. Lustria. Towards Semi-Automated Construction of Laboratory Test Result Comprehension Knowledgebase for a Patient-Facing Application. *AMIA 2023 Informatics Summit*, AMIA, Seattle, WA. March 2023 (Podium presentation)
148. Killian MO, Tian S, Xing A, Huges D, Gupta D, **He Z**. Predicting Health Outcomes Using Machine Learning in Pediatric Heart Transplantation Using UNOS Data. *The 43th Annual Meeting & Scientific Sessions of the International Society for Heart and Lung Transplantation (ISHLT 2023)*, Denver, CO, USA. April 2023.
149. Killian MO, Tian S, Xing A, Huges D, Gupta D, **He Z**. Predicting Health Outcomes through Machine Learning in Pediatric Heart Transplantation: Use of National Data from the United Network for Organ Sharing. *The 27th Annual Conference of the Society for Social Work and Research (SSWR)*, Society for Social Work and Research, Phoenix, AZ. January 2023. (Podium presentation)
150. Mast M, Tian S, **He Z**, Krimmel E, Buckley M, Gome S, Hennessey A, Horn A, Howell O. Demonstration of the use of computational linguistics and machine learning to identify phenological

- anomalies described in the world's biodiversity specimen records. *The 6th Annual Digital Data Conference*, iDigBio, Virtual. May 2022. (Podium Presentation)
151. Lustria MLA, Dieciuc M, Dilanchian A, Zhang S, Boot WR, Charness N, Carr D, **He Z**, Chakraborty S, Terracciano A. "I got training on the brain": Designing Messages to Improve Seniors' Adherence to Cognitive Assessment and Training Programs. *2022 Kentucky Conference on Health Communication*, University of Kentucky, Lexington, KY. (**Top Poster Award**).
 152. **He Z**, Tian S, Singh A, Chakraborty S, Lustria LA, Charness N, Boot WR. "Machine Learning-Based Predictions of Older Adults' Adherence to Technology-Based Cognitive Training". *2021 Aging and Health Informatics Conference*. December 6-7, 2021. Virtual. (**Best Interdisciplinary Research Award**).
 153. **He Z**, Erdengarsileng A, Tang X, Xu Y, Li Q, Charness N, Hogan W, George TJ, Guo Y, Bian J. ctGATE: A Clinical Trial Generalizability Assessment Toolbox. *AMIA 2021 Informatics Summit*. (Podium Presentation)
 154. Michael Dieciuc, Dawn Carr, Zhe He, Shayok Chakraborty, Neil Charness, Mia Lustria, Ankita Singh, Walter Boot. An Introduction to the Adherence Promotion With Person-Centered Technology Project. *Gerontological Society of America Annual Meeting 2020 (GSA 2020)*. *Innovation in Aging*. 2020; 4(Suppl 1): 656.
 155. Zhang Z, Wilson C, and **He Z**. Contextualizing Consumer Health Information Seeking. *AMIA 2019 Annual Symposium*. In press. (Poster)
 156. Gerido LH and **He Z**. Improving Patient Participation in Cancer Clinical Trials: A qualitative analysis of HSRProj & RePORTER. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*;264:1925-1926. doi: 10.3233/SHTI190716. PMID: 31438410. (Poster)
 157. **He Z**, Barrett LA, Rizvi RF, Payrovnaziri SN, and Zhang R. Exploring the Discrepancies in Actual and Perceived Uses of Dietary Supplements Among Obese Patients. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*;264:1474-1475. doi: 10.3233/SHTI190491. PMID: 31438188. (Poster).
 158. Ismail NH, Liu N, Du M, **He Z**, Hu X. Identification of Cancer Survivors Living with Post-Traumatic Stress Disorder (PTSD) on Social Media. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*;264:1468-1469. doi: 10.3233/SHTI190488. PMID: 31438185. (Poster).
 159. Zhang Z, Lu Y, Wilson C, and **He Z**. Making Sense of Clinical Laboratory Results: An Analysis of Questions and Replies in a Social Q&A Community. *MEDINFO 2019*. August 26-30, 2019. Lyon, France. *Studies in Health Technology and Informatics*;264:2009-2010. doi: 10.3233/SHTI190759. PMID: 31438453.
 160. **He Z** and Bian J. Early Findings of a Survey on the Perception of Clinical Trial Generalizability Assessment and Eligibility Criteria Design. *AMIA 2019 Informatics Summit*. March 25-28, 2019. San Francisco, CA. (Poster)
 161. Gerido L and **He Z**. Opportunities to Improve Methods for Increasing Participation in Cancer Clinical Trials. *AMIA 2018 Annual Symposium*. November 3-8, 2018. San Francisco, CA (Poster)
 162. Gerido L and **He Z**. Patient-Centered Strategies to Increase Participation in Cancer Clinical Trials. *The Sixth IEEE International Conference on Healthcare Informatics (ICHI 2018)*, June 4-7, 2018. New York, NY. (Poster)
 163. Yu B, Gerido L, and **He Z**. Exploring Text Classification of Social Support in Online Health Communities for People Who are D/deaf and Hard of Hearing. *Proceedings of the 80th Annual Meeting of the Association for Information Science and Technology (ASIS&T 2017)*, Washington DC. October 27 - November 1, 2017 (Visual Presentation Abstract)
 164. Gerido L, Kazmer M, and **He Z**. Mardis M. Emergent Trends in Research to Increase Participation in Cancer Clinical Trials by Underrepresented Population: A Qualitative Analysis of the HSRProj Database. *Proceedings of the 80th Annual Meeting of the Association for Information Science and*

Technology (ASIS&T 2017), Washington DC. October 27 - November 1, 2017 (Visual Presentation Abstract)

165. Bian J, Sura A, Guo Y, Modave F, and **He Z**, Shenkman E, Hogan W. Implementing a Hash-based Privacy-Preserving Entity Resolution Tool in the OneFlorida Clinical Data Research Network. *AMIA 2017 Annual Symposium*. November 4-8, 2017. Washington DC. In press. (Poster)
166. **He Z**, Chen Z, Mixon S, and Bian J. A Visual Analysis Tool for Qualitative Eligibility Criteria of Clinical Studies. *AMIA 2017 Annual Symposium*. November 4-8, 2017. Washington DC. In press. (Poster)
167. Lossio-Ventura JA, Hogan WR, Modave F, Hicks A, Guo Y, **He Z**, Vasconcelos M, and Bian J. Building an Obesity and Cancer Semantic Web Knowledge Base. *AMIA 2017 Annual Symposium*. November 4-8, 2017. Washington DC. In press. (Poster)
168. **He Z** and Langford A. Comparative Analysis of Geriatric and Adult Drug Clinical Trials on ClinicalTrials.gov. *The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)*. August 21-25, 2017. Hangzhou, China. (Poster)
169. Huo T, George TJ, Guo Y, **He Z**, Prosperi M, Modave F, and Bian J. Explore Care Pathways of Colorectal Cancer Patients with Social Network Analysis. *The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)*. August 21-25, 2017. Hangzhou, China. (Poster)
170. Williams N, **He Z**, Barnes A, Langford A, and Jean-Louis G. Minority participation in clinical trials for obstructive sleep apnea and insomnia. *SLEEP 2017*, June 3-7, 2017. Boston, MA. (Poster).
171. Langford A and **He Z**. Eligibility Criteria for Hypertension-Related Interventions: Are Blacks Included?" *The 38th Annual Meeting and Scientific Sessions of the Society of Behavioral Medicine (SBM 2017)*. March 29 - April 1, 2017. San Diego, CA. ([Poster](#))
172. **He Z**, Chen Z, Mixon S, Loss-Ventura JA, and Bian J. Developing a Parser to Structure Free-Text Qualitative Eligibility Criteria in Clinical Trials. *2017 Florida Undergraduate Research Conference*. February 24-25, 2017. Miami, FL. (Poster)
173. Hicks A, Hogan WR, He Z, Hanna J, Shenkman B, Yuan J, and Bian J. Using Semantic Queries for Cohort Discovery Across Research Networks. *OHDSI Symposium 2015*. October 20, 2015, Washington DC. (Poster)
174. **He Z**, Ryan P, Wang S, and Weng C. A Method for Assessing the Collective Population Representativeness of Multiple Related Clinical Trials Using Public Data. *AMIA 2015 Summit on Clinical Research Informatics*. March 2015. San Francisco, CA (Oral presentation).
175. Geller J, Ochs C, **He Z**, and Perl Y. A Structural Meta-ontology for the BioPortal ontologies. *Proceedings of Bio-ontologies 2013 (co-located with ISMB/ECCB 2013)*, July 20, Berlin, Germany. (Poster)

COLLOQUIA, SEMINARS & TALKS

Invited Talks

1. "Harnessing Explainable, Equitable, and Actionable Informatics to Improve Health". FSU Department of Industrial and Mechanical Engineering, October 2024
2. "Harnessing Explainable, Equitable, and Actionable Informatics to Improve Health". FSU Department of Statistics, October 2024
3. "Harnessing Explainable, Equitable, and Actionable Informatics to Improve Health". FSU Department of Computer Science, October 2024
4. "Harnessing Explainable, Equitable, and Actionable AI to Improve Health". FSU Department of Scientific Computing, September 2024
5. "Towards An AI-Powered Application for Laboratory Test Results Comprehension". University of Pittsburgh. September 2024.

6. "Using Informatics and Generative AI to Support Patients' Understanding of Lab Test Results". OneFlorida+ Clinical Research Consortium. April 2024.
7. "Harnessing Explainable, Equitable, and Actionable AI to Improve Health". University of California at San Diego Department of Biomedical Informatics, February 2024
8. "Using Informatics and Generative AI to Support Patients' Understanding of Lab Test Results". National Institutes of Health (Text Mining and Natural Language Processing Special Interest Group), January 2024. ([NIH Videocast link](#))
9. "Using Informatics and AI to Support Patients' Comprehension of Lab Test Results". FSU Institute for Successful Longevity. January 2024.
10. "Harnessing Explainable, Equitable, and Actionable AI to Improve Health". Moffitt Cancer Center, November 2023.
11. "Harnessing Explainable, Equitable, and Actionable AI to Improve Health" FSU Machine Learning Expo. April 2023. ([Recording](#))
12. "Coupling Data Science and Emerging Technologies to Combat Aging-Related Cognitive Decline". Nanjing University. November 2022
13. "Harnessing the Power of Artificial Intelligence to Transform Precision Health". UT Austin Precision Health (T32) Methodology Summer Boot Camp. August 2022
14. "Data-Driven Clinical Trial Generalizability Optimization". UF CTSI LHS and AI Symposium, March 2021.
15. "Explainable Artificial Intelligence for Predicting Health Outcomes". UF CTSI LHS and AI Symposium, February 2021.
16. "Artificial Intelligence in Healthcare: Impact, Challenges, and Risks". Florida State University, June 2020.
17. "Introduction to OneFlorida Data Trust and i2b2 Platform for Cohort Discovery". Florida State University, April 2020.
18. "Mortality Prediction for Patients with Myocardial Infarction". 2019 Machine Learning Expo (MLx19). Florida State University. April 2019.
19. "Too Much Medical Jargon for Patients? - Assessing the Language Gap Between Health Professionals and Consumers". Institute for Successful Longevity, Florida State University. November 2018.
20. "Optimizing Clinical Trial Participation Selection Design with Informatics". Invited Research Talk at Department of Statistics. Florida State University. Tallahassee, FL. September 2018.
21. "Semantic-Powered Health Data Mining and Analytics." FSU Machine Learning Conference (MLx18). Tallahassee, FL. April 2018.
22. "Optimizing Clinical Study Eligibility Criteria Design with Informatics". Invited Research Colloquium Talk at *College of Medicine, University of Florida*. Gainesville, FL. October 2017.
23. "Optimizing Clinical Trial Eligibility Criteria Design with Informatics". Invited Webinar Research Talk at *Eli Lilly and Company*. October 2017.
24. "Ontology-Based Analysis of Clinical Research Eligibility Criteria". Research Colloquium at *School of Information, Florida State University*. Tallahassee, FL. December 2016.
25. "Optimizing Clinical Research Participant Selection Design with Informatics." Invited Research Colloquium Talk at *Department of Scientific Computing, Florida State University*. Tallahassee, FL. October 2016
26. "Where are the older volunteers?" *Institute for Successful Longevity, Florida State University*, April 2016

27. "Leverage Social Media to Enrich Consumer Health Vocabulary," *School of Information, Florida State University*, Tallahassee, FL. April 2016 [[Video](#)]
28. "Case Studies in Clinical Research Informatics," Guest lecture (50 min) at HINF 5431 "Health Informatics II" (Instructor: Dr. Rui Zhang), *Institute for Health Informatics, University of Minnesota*, February 2016
29. "Ontology-enhanced Data Analytics," Research colloquium (60 min) at *School of Information Research Retreat, Florida State University*, Tallahassee, FL. November 2015. [[Video](#)]
30. "Health Data Analytics." Guest lecture (70 min) at "LIS 4785 Introduction to Health Informatics" (Instructor: Dr. Sanghee Oh), *School of Information, Florida State University*, Tallahassee, FL. October 2015.
31. "A Comparative Analysis of the Density of SNOMED CT Conceptual Content for Semantic Harmonization". Invited webinar talk at the *IHTSDO Implementation SIG Meeting*. September 2015
32. "Assessing the Collective Population Representativeness of Related Clinical Trials". Research talk, Department of Computer Science", *Rowan University*, Glassboro, NJ. February 2015.
33. "Assessing the Collective Population Representativeness of Related Clinical Trials". Research talk, School of Information, *Florida State University*, Tallahassee, FL. February 2015
34. "A Family-based Quality Assurance Framework for Biomedical Ontologies in BioPortal". Guest lecturer in the course Symbolic Methods in Biomedical Informatics (G4003), instructor: C. Weng. Department of Biomedical Informatics, *Columbia University*, New York, NY. October 2013
35. "Introduction to the UMLS and Auditing the UMLS Refined Semantic Network". Guest lecturer at the course Medical Informatics (GNM 3126), instructor: D. Wei. Department of Computer Science & Information. *Stockton University*, November 2013.

Conference Talks

36. "Machine Learning-Based Predictions of Older Adults' Adherence to Technology-Based Cognitive Training". 2021 Aging and Health Informatics Conference. December 6-7, 2021. Virtual. (Best Interdisciplinary Research Award).
37. "Comparing the Study Populations in Dietary Supplement and Drug Clinical Trials for Metabolic Syndrome Related Disorders". *AMIA 2019 Informatics Summit*. March 27, 2019. San Francisco, CA.
38. "Layered Multistep Bidirectional Long Short-Term Memory Networks for Biomedical Word Sense Disambiguation". *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)*. December 6, 2018. Madrid, Spain.
39. "Extended Analysis of Topological-Pattern-Based Ontology Enrichment". *The 3rd International Conference on Semantics-Powered Data Analytics*. December 5, 2018. Madrid, Spain.
40. "Exploratory Textual Analysis of Consumer Health Languages for People Who are D/deaf and Hard of Hearing". *The 2nd International Workshop on Semantics-Powered Data Analytics*. November 13, 2017. Kansas City, MO.
41. "An Exploration of Semantic Relations in Neural Word Embeddings Using Extrinsic Knowledge". *The 2nd International Workshop on Semantics-Powered Data Analytics*. November 13, 2017. Kansas City, MO.
42. "Auditing the extents of top semantic types of the UMLS Semantic Network". *The 2nd International Workshop on Semantics-Powered Data Analytics*. November 13, 2017. Kansas City, MO.
43. "Comparing and Contrasting A Priori and A Posteriori Generalizability Assessment of Clinical Trials on Type 2 Diabetes Mellitus. *AMIA 2017 Annual Symposium Proceedings*. November 6, 2017. Washington DC.
44. "Textual Analysis of Consumer Health Languages for People with Disabilities: Implications for e-Health Literacy Divide". *The 2nd International Workshop on Semantics-Powered Data Analytics (in conjunction*

- with 2017 IEEE International Conference on Bioinformatics and Biomedicine). November 13, 2017. Kansas City, MO.
45. “An Exploration of Semantic Relations in Neural Word Embeddings Using Extrinsic Knowledge”. *The 2nd International Workshop on Semantics-Powered Data Analytics (in conjunction with 2017 IEEE International Conference on Bioinformatics and Biomedicine)*. November 13, 2017. Kansas City, MO.
 46. “Auditing the extents of top semantic types of the UMLS Semantic Network”. *The 2nd International Workshop on Semantics-Powered Data Analytics (in conjunction with 2017 IEEE International Conference on Bioinformatics and Biomedicine)*. November 13, 2017. Kansas City, MO.
 47. “Perceiving the Usefulness of National Cancer Institute Metathesaurus for Enriching NCI with Topological Patterns.” *The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)*. August 2017. Hangzhou, China.
 48. “Analysis of Temporal Constraints in Qualitative Eligibility Criteria of Cancer Clinical Studies”. *2016 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2016)*. December 2016.
 49. “Topological-Pattern-based Recommendation of UMLS Concepts for National Cancer Institute Thesaurus”. *AMIA 2016 Annual Symposium*. November 2016. Chicago, IL. ([Slides](#))
 50. "Assessing the population representativeness of clinical trials with combined use of multiple data sources. *2016 NIH Future Research Leaders Conference. National Institutes of Health*, September 2016. Bethesda, MD.
 51. “Assessing the Population Representativeness of Colorectal Cancer Treatment Clinical Trials”. *The 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2016)*. August 18, 2016. Orlando, FL. [[Picture](#)]
 52. “UMLS-Based Analysis of Medical Terminology Coverage for Tags in Diabetes-Related Blogs”. *iConference 2016*. March 22, 2016. Philadelphia, PA. ([Runner up of the Most Interesting Preliminary Results Paper Award](#)) ([Slides](#))
 53. “Simulation-based Evaluation of the Generalizability Index for Study Traits”. *AMIA 2015 Annual Symposium*. November 16, 2015. San Francisco, CA. (**Distinguished Paper Award** of AMIA 2015 Annual Symposium) ([Slides](#))
 54. “Assessing the Population Representativeness of Type 2 Diabetes Trials by Combining Multiple Public Data Resources”. *The 15th World Congress on Health and Biomedical Informatics (MEDINFO 2015)*. Sao Paulo, Brazil. August 2015.
 55. “Developing Insights for Drug Repurposing from Temporal Patterns in Medication Intervention Trials in ClinicalTrials.gov”. *AMIA 2015 Summit on Clinical Research Informatics (AMIA CRI 2015)*. San Francisco, CA. March 25th 2015.
 56. “A Method for Assessing the Collective Generalizability of Multiple Related Clinical Trials Using Public Data”. *AMIA 2015 Summit on Clinical Research Informatics (AMIA CRI 2015)*. San Francisco, CA. March 26th 2015.
 57. “A Method for Analyzing Commonalities in Clinical Trial Target Populations”. *AMIA 2014 Annual Symposium (AMIA 2014)*. Washington D.C. November 18th 2014.
 58. “Categorizing the Relationships between Structurally Congruent Concepts from Pairs of Terminologies for Semantic Harmonization”. *AMIA 2014 Summit on Translational Bioinformatics (AMIA TBI 2014)*. San Francisco, CA. April 8th 2014.
 59. “A Family-Based Framework for Supporting Quality Assurance of Biomedical Ontologies in BioPortal”. *AMIA 2013 Annual Symposium (AMIA 2013)*. Washington, D.C. November 17th 2013.
 60. “Auditing Redundant Import in Reuse of a Top Level Ontology for the Drug Discovery Investigations Ontology”. *The 4th International Conference on Biomedical Ontology (ICBO 2013)*. Montreal, QC, Canada. July 7th 2013.

61. “Clinical Clarity versus Terminological Order – the Readiness of SNOMED CT Concept Descriptors for Primary Care”. *The 21st International Conference on Information and Knowledge Management (CIKM 2012)*, Maui, HI. October 29th 2012.
62. “Questionable Relationship Triples in the UMLS”. 2012 *IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI 2012)*, Shenzhen, China. January 6th 2012.

RESEARCH SUPPORT

Extramural Research Grants Funded

An Open Road Driving Performance Task to Examine Long-Term Medical Marijuana Use and Prescription Opioid Positivity in Adults 50 and older (NIH 1R01DA057965-01A1)

- Program: Research Project Grant (Parent R01 Clinical Trial Required)
- Sponsor: National Institute on Drug Abuse/ National Institutes of Health
- Date: 9/2024 - 5/2029
- Total Amount: \$3,470,129
- Role: Co-Investigator (Contact PI: Nicole Ennis)
- Goal: The primary goal of the project is to identify the effects of daily long-term (i.e., use >12 months daily or most days of the week) medical marijuana use on driving performance outcomes using an open road test under real-world conditions in adults 50 and older who endorse chronic or severe non-malignant pain; and examine the combined effect of daily long-term medical marijuana use and prescription opioid use on driving outcomes.

Artificial Intelligence Passport for Biomedical Research (AIPAssportBMR); Digital Experiential Learning Community for Upskilling in Artificial Intelligence for Biomedical Behavioral and Clinical Research (NIH 1R25GM155478)

- Program: Innovative Programs to Enhance Research Training (IPERT)
- Sponsor: National Institute of General Medical Sciences/ National Institutes of Health
- Date: 9/2024 - 8/2029
- Total Amount: \$2,625,000
- Role: FSU Site PI (Contact PI: Azra Bihorac)
- Goal: The goal of this project is to develop a nation-wide digital course to upskill biomedical researchers' expertise in artificial intelligence (AI).

Precision HIV Prevention: Piloting a Youth Learning Health Community (R21MH137736)

- Program: R21/R33 (RFA-MH-24-100: Precision HIV Health: Integrating Data and Implementation Science to Accelerate HIV Prevention and Treatment)
- Sponsor: National Institute on Mental Health / National Institutes of Health
- Date: 9/2024 - 8/2029
- Total Amount: \$801,110
- Role: MPI (Contact PI: Sylvie Naar)
- Goal: The proposed approach to optimizing intervention implementation is the integration of data science, implementation science, and the science of engagement into a Youth Learning Health Community (Y-LHC).

LabGenie: A Patient-Engagement Tool to Aid Older Adults' Understanding of Lab Test Results (R21HS029969)

- Program: R21/R33 grant
- Sponsor: US Agency for Healthcare Research and Quality
- Date: 4/2024 - 3/2029
- Total Amount: \$1,014,336
- Role: Contact PI (MPI: Mia Liza A. Lustria)

The Bioecological Center for Rural Children's Health (BeRCH)

- Program: EPA Center Grant
- Sponsor: US Environmental Protection Agency
- Date: 9/2023 - 8/2027

- Total Amount: \$1,900,000
- Role: Co-I (MPIs: Gregg Stanwood and Javier Rosado)

Prediction of Health Outcomes and Adverse Events in Pediatric Organ Transplantation in Florida (R21LM013911)

- Program: NIH Exploratory/Developmental Research Grant Program (R21)
- Funding Agency: National Library of Medicine / National Institutes of Health
- Date: 2/2022 - 1/2025
- Total Amount: \$395,200
- Role: MPI (Contact PI: Michael Killian)

SHARE Program: Innovations in Translational Behavioral Science to Improve Self-management of HIV and Alcohol Reaching Emerging Adults (P01AA029547)

- Program: NIH Research Program Project Grant (P01)
- Funding Agency: National Institute on Alcohol Abuse and Alcoholism / National Institutes of Health
- Date: 9/2021 - 8/2026
- Total Amount: \$6,478,937
- Role: Co-I (PI: Sylvie Naar)

Establishing Technology-Facilitated Measurement-Based Care for Rural Veterans through VA and Community Partners (P16024).

- Funding Agency: Veterans Health Administration (VHA) Office of Rural Health (ORH) / University of Iowa
- Date: 10/2021 - 09/2022
- Total Amount: \$377,700
- Role: Co-I (FSU Site PI: Matthew Bryan Howren; PI: Carolyn Turvey)

Innovations in Big Data and Implementation Science to End the Youth HIV Epidemic in Florida

- Funding Agency: NIH / UNC at Chapel Hill
- Budget: \$249,080
- Date: 09/2020-08/2022
- Role: Co-Investigator

Optimizing Alzheimer's Disease Clinical Trial Generalizability (R21AG061431-02S1)

- Program: NIH Administrative Supplement on Alzheimer's Disease
- Funding Agency: National Institute on Aging / National Institutes of Health
- Budget: \$370,841
- Date: 04/2020-11/2022
- Role: Contact Principal Investigator (MPI with Jiang Bian)

Trajectories of Medication Adherence in Pediatric Organ Transplantation and Their Relationship to Posttransplant Health Outcomes (R21AI148849)

- Program: NIH Exploratory/Developmental Research Grant Program (R21)
- Funding Agency: National Institute of Allergy and Infectious Diseases / National Institutes of Health
- Date: 06/2020- 06/2022
- Total Amount: \$423,500
- Role: Informatics Advisor (PI: Michael Killian)

The Adherence Promotion with Person-centered Technology (APPT) Project: Promoting Adherence to Enhance the Early Detection and Treatment of Cognitive Decline (R01AG064529)

- Program: NIH Research Grant Award (R01)
- Funding Agency: National Institute on Aging / National Institutes of Health
- Date: 08/2019- 03/2025
- Total Amount: \$2.9 million
- Role: Contact PI (with Shayok Chakraborty and Walter Boot, 2/2024 – 3/2025, previously Co-I from 8/2019 – 2/2024)

Transforming and Translating Discovery to Improve Health (UL1TR001427)

- Program: NIH Clinical and Translational Science Award (Joint CTSA with University of Florida)
- Funding Agency: National Center for Advancing Translational Sciences / National Institutes of Health
- Total Amount: \$21,253,776
- Date: 8/2019-7/2024
- Role: Informatics Lead (FSU PI: Jeffrey Joyce)

Posttransplant Health Outcomes in Pediatrics Organ Transplantation

- Program: Clinical and Translational Science Institute's (CTSI) Precision Health Initiative Pilot Award
- Funding Agency: University of Florida CTSI (Parent UL1TR001427 funded by National Center for Advancing Translational Sciences/National Institutes of Health)
- Date: 07/2019 - 06/2020
- Total Amount: \$40,834
- Role: Co-Principal Investigator (MPI: Michael Killian)

Systematic Analysis of Clinical Study Generalizability Assessment Methods with Informatics (R21AG061431)

- Program: NIH Exploratory/Developmental Research Grant Program (R21)
- Funding Agency: National Institute on Aging / National Institutes of Health
- Total Amount: \$422,382
- Date: 01/2019-11/2022
- Role: Contact Principal Investigator (MPI with Jiang Bian)

Developing an Informatics Tool to Assess the Generalizability of Clinical Trials on Type 2 Diabetes

- Sponsor: Eli Lilly and Company
- Date: 07/2018 - 02/2019
- Total Amount: \$38,015
- Role: Principal Investigator

Testing a New Approach for Academic Work Evaluations, 08/2017-08/2018

- Program: Phase I of Small Business Innovation Research (NIH SBIR)
- Funding Agency: National Institute of Health (SBIR to Pevals; FSU subaward)
- Budget: \$20,000
- Role: Co-Principal Investigator of FSU subaward (PI: Minjing Tao)

VATEC: A Visual Analysis Tool of Qualitative Eligibility Criteria of Clinical Studies. 12/2016 - 12/2017

- Program: [AWS Cloud Credits for Research](#)
- Sponsor: Amazon Inc.
- Budget: \$1,200
- Role: Principal Investigator

Developing Data-Driven Tools for Assessing the Population Representativeness of Clinical Trials.

- Program: [Amazon Web Services Research Grant](#)
- Sponsor: Amazon Inc.
- Dates: 12/2015 - 12/2016
- Budget: \$2,000
- Role: Principal Investigator

Columbia University Clinical and Translational Science Award (UL1TR000040)

- PI: Henry N. Ginsberg
- Funding Agency: National Center for Advancing Translational Sciences / National Institutes of Health
- Role: Postdoc Investigator
- Date: 02/12/2014 – 07/31/2015
- Developed data-driven methods to analyze the generalizability of clinical trials

Bridging the Semantic Gap between Research Eligibility Criteria and Clinical Data (R01LM009886)

- PI: Chunhua Weng
- Agency: National Library of Medicine / National Institutes of Health
- Role: Postdoc Investigator
- Date: 02/12/2014 – 07/31/2015
- Developed data-driven methods to analyze the generalizability of clinical trials

Partition to Support Auditing and Extending the UMLS (R01LM008445)

- PI: Yehoshua Perl
- Agency: National Library of Medicine / National Institutes of Health
- Role: Ph.D. Investigator / Research Assistant
- Date: 01/2009 – 08/2010
- Developed structural and semantic methods to audit the UMLS

Taxonomies Supporting Orientation, Navigation and Auditing of Terminologies (R01LM008912)

- PI: Yehoshua Perl
- Agency: National Library of Medicine / National Institutes of Health
- Role: Ph.D. Investigator / Research Assistant
- Date: 01/2009 – 08/2011
- Developed structural and semantic methods to enrich SNOMED CT

Intramural Research Grants Funded

DeepCare: Artificial Intelligence & Quality of Life in Older Adults at Risk of Alzheimer's Disease and Related Dementias

- Program: Collaborative Collision
- Funding Agency: FSU Office of Research
- Date: 8/2022 - 7/2024
- Total Amount: \$50,000
- Role: PI

Towards an AI-Assisted Application for Lab Result Comprehension for Older Adults with Multiple Chronic Conditions

- Program: Planning Grant
- Funding Agency: FSU Institute for Successful Longevity
- Date: 5/2022 - 5/2024
- Total Amount: \$25,000
- Role: PI

Identifying the Influence of Genetic and Social Epigenomic Factors on Long-Term Comorbid Outcomes on Depression and Cardiovascular Disease

- Program: FSU Health Big Data Science Pilot Project
- Sponsor: Florida State University
- Budget: \$15,000
- Date: 07/2020-06/2021
- Role: Co-PI (PI: Eugenia Millender; Co-PIs: Zhe He, Tyra Dark, Michael Killian, John Lowe, Frankie Wong)

Embedding-Based Knowledge Graphs for Critical Biomedical Applications

- Program: FSU Collaborate Collision Seed Grant
- Sponsor: FSU Office of Research
- Date: 08/2020 - 9/2021
- Total Amount: \$24,835
- Role: Co-PI (PI: Xiuwen Liu, Co-PIs: Zhe He, Chao Huang)

A Pilot Study of mDOT for Immunosuppression Medication Adherence in Adolescent Heart Transplant Recipients

- Sponsor: FSU Office of Research
- Date: 05/2020 – 05/2022

- Total Amount: \$12,883
- Role: Co-Investigator (PI: Michael Killian)

Measuring Prevalence of Autism Spectrum Disorder and Benchmarking Utilization Using the OneFlorida Consortium Data

- Program: Planning Grant
- Sponsor: Institute for Successful Longevity, Florida State University
- Date: 05/2018 - 05/2019
- Total Amount: \$15,500
- Role: Co-Principal Investigator (PI: Henry Carretta)

Assessing the Representation of Older Adults with Multiple Chronic Conditions in Cancer Clinical Trials.
05/2016 - 05/2018

- Program: Planning Grant
- Sponsor: Institute for Successful Longevity, Florida State University
- Budget: \$15,500
- Role: Principal Investigator

Towards Data-Driven Assessment of the Population Representativeness of Clinical Trials

- Program: First Year Assistant Professor Award (FYAP)
- Sponsor: Council on Research and Creativity, Florida State University
- Date: 05/2016 - 08/2016
- Budget: \$20,000
- Role: Principal Investigator

Resource Grant Funded

- Open Access Fund. FSU Libraries. Amount: \$1,500, 04/2018
- Accelerating Data-Driven Biomedical and Health Informatics Research with GPU. NVIDIA GPU Grant. NVIDIA Corporation. Amount: \$1,200, 02/2018
- Undergraduate Research Opportunity Program Materials Grant, Center for Undergraduate Research and Academic Engagement, Florida State University, 11/2016

RESEARCH ADVISING

Junior Faculty Mentorship

- **Zhaotong Lin, PhD**
Dates: December 2024 – Present
Position: Assistant Professor, Department of Statistics, FSU
Program: UF-FSU CTSI K12 application
Topic: Genome-wide association studies
- **Tyra Dark, PhD**
Dates: September 2023 – Present
Position: Assistant Professor, Department of Statistics, FSU
Program: K01 of NIMH/NIH
Topic: Utilizing mixed methods to understand social determinants of successful disease management among populations with comorbid cardiometabolic syndrome and anxiety disorder
- **Julia Sheffler, PhD**
Dates: December 2024 – Present
Program: UF-FSU KL2 Scholar
Position: Assistant Professor, Department of Behavioral Science and Social Medicine, FSU
Topic: Nutrition intervention for Alzheimer's disease and related dementias

Postdoc Scholars

- **Balu Bhasuran, PhD**
Dates: July 2023 – Present

Topic: Biomedical Deep Learning, Natural Language Processing, and EHR Data Modeling

- **Daniel Leme, PhD**

Dates: To start in April 2025

Topic: Gerontology

PhD Students

PhD Dissertation Advisor (Major Professor)

- **Seyedeh Neelufar Payrovnaziri**, <https://sites.google.com/view/neelufar>
PhD Graduate, School of Information, Florida State University
Dates: Spring 2018 – Fall 2021
Graduation: December 2021
First Employment: Postdoctoral Researcher at Stanford University School of Medicine
Topic: Explainable Artificial Intelligence in Mortality Prediction for Cardiovascular Diseases
- **Forhan Bin Emdad**
PhD Student, School of Information, Florida State University
Dates: Fall 2021 – present
Expected Graduation: May 2025
Topic: Trustworthy Artificial Intelligence in Medicine
- **Yuanying Pang**
PhD Student, School of Information, Florida State University
Dates: Fall 2022 – present
Expected Graduation: May 2026
Topic: To be determined

PhD Dissertation Co-Advisor

- **Xiaoyu Wang**
PhD Candidate, School of Statistics, Florida State University
Dates: Fall 2022 – present
Expected Graduation: May 2026
Topic: To be determined

PhD Dissertation Committee Member

- **Hengyi Fu**, <https://fuhengyi.wordpress.com/>
PhD Graduate, School of Information, Florida State University
Graduation Date: May 2019
First job: Tenure-Track Assistant Professor at University of Alabama
Dissertation: Peer production of knowledge in social Q&A communities at startup stage
- **Lynette Gerido**, <https://directory.cci.fsu.edu/lynette-gerido/>
PhD Graduate, School of Information, Florida State University
Dates: 08/2017 – 05/2021
First Employment: Postdoctoral Researcher at University of Michigan
Dissertation: The Unequal Burden of Breast Cancer: An Exploration of Information Behavior and Racial Disparities in Genomic Screening Decisions
- **Timothy Kanke**, <https://directory.cci.fsu.edu/timothy-kanke/>
PhD Graduate, School of Information, Florida State University
Graduation Date: May 2021
Dissertation: Exploring the Knowledge Curation Work of Wikidata
- **Na-eun Han**, <https://directory.cci.fsu.edu/na-eun-han/>
PhD Student, School of Information, Florida State University
Dates: 08/2016 – 05/2022
Expected Graduation: 2021
Topic: Collaborative Work Organization, Knowledge Organization, and Data Curation

- **Maedeh Agharazidermani**, <https://directory.cci.fsu.edu/maedeh-agharazidermani/>
PhD Graduate, School of Information, Florida State University
Dates: 08/2017 – 05/2022
Expected Graduation: 2022
Topic: Health Information Behavior
First Employment: Postdoc Fellow at University of Florida
- **Yiqi Xu**
PhD Graduate, Department of Statistics, Florida State University
Dates: 05/2016 – 05/2021
Expected Graduation: August 2021
Topic: Statistical Methods for Analyzing Functional Data and Clinical Trial Analysis
- **Haixu Wang**
PhD Graduate, Department of Applied Mathematics, Florida State University
Dates: 05/2016 – 05/2022
Dissertation: A Discrete-Time Mutually Exciting Stochastic Model
First Employment: Citibank
- **Shubo Tian**
PhD Student, Department of Statistics, Florida State University
Graduation: August 2022
Topic: Biomedical Natural Language Processing
First employment: Research Scientist at National Center for Biotechnology Information
- **Daniel Bis**
PhD Graduate, Department of Computer Science, Florida State University
Graduation: August 2022
Topic: Natural Language Processing and Deep Learning
First employment: Research Scientist at Amazon Research
- **Aiwen Xing**
PhD Graduate, Department of Statistics, Florida State University
Graduation: June 2022
Topic: Network Meta-Analysis of Clinical Trial
- **Austin King**
PhD Graduate, Department of Statistics, Florida State University
Graduation: August 2023
Dissertation: Improving Clinical Risk Models Through Interactions of Polygenic Risk Scores and Omics
Topic: Text Mining of Discussion Board Postings of D/deaf Online Communities
- **Wenhan Han**
PhD Graduate, Department of Statistics, Florida State University
Dates: Fall 2020 – Summer 2024
- **Biyang Yu**
PhD Candidate, School of Information, Florida State University
Dates: Fall 2017 – present
Expected Graduation: 2019
Topic: Text Mining of Discussion Board Postings of D/deaf Online Communities
- **Arslan Erdengarsileng**
PhD Graduate, Department of Statistics, Florida State University
Dates: Fall 2020 – Summer 2023
- **Siming Liang**
PhD Candidate, Department of Applied Math, Florida State University
Dates: Fall 2021 – present
Expected Graduation: 2024

- **Meng Zhuo**
PhD Graduate, Department of Statistics, Florida State University
Dates: Fall 2020 – Summer 2023
Expected Graduation: 2023
- **Trina Dutta**
PhD Candidate, Department of Computer Science, Florida State University
Dates: Fall 2022 – Summer 2023
Expected Graduation: 2025
- **Junge Li**
PhD Candidate, Department of Statistics, Florida State University
Dates: Fall 2021 – Fall 2024
- **Chashi Muhuil Islam**
PhD Candidate, Department of Statistics, Florida State University
Dates: Fall 2023 – Fall 2027
- **Tianyuan Cheng**
PhD Candidate, Department of Statistics, Florida State University
Dates: Fall 2023 – Fall 2026
- **Cole Patoine**
PhD Candidate, Department of Health, Nutrition, and Food Sciences, Florida State University
Dates: Fall 2023 – Fall 2026
- **Durbadal Ghosh**
PhD Candidate, Department of Statistics, Florida State University
Dates: Fall 2022 – Spring 2026

PhD Research Unrelated to Dissertation

- **Jiwon Lee, PhD**
PhD Graduate, Department of Statistics, Florida State University
Dates: 08/2016 – 05/2017
Role: Graduate Assistant
Topic: Prevalence of Multiple Chronic Conditions in the National Inpatient Sample
- **Min Sook Park, PhD**
PhD Graduate, School of Information, Florida State University
Dates: 08/2015 - 12/2015
Role: Graduate Research Assistant
Topic: Analysis of Medical Vocabulary Coverage on Health-Related Social Media

MS Students

MS Thesis Committee Member

- **Zhiwei Chen**, <https://www.linkedin.com/in/zwchan/>
Department: Computer Science
Dates: Fall 2015 – Summer 2017
Thesis: A Study on Semantic Relation Representations In Neural Word Embeddings
First Employment: Software Engineer in Machine Learning at Evie Labs, Palo Alto, CA
- **Nicole Hertel**
Department: School of Information
Tentative Graduation: Fall 2021
Thesis: Trust and behavioral intent toward GAN-derived avatar healthcare provider (HCP) in simulated telehealth setting

MS Research Unrelated to Thesis

- **Laura A. Barrett**, School of Information, Florida State University, Fall 2019 – Summer 2022
- **Xiang Tang**, *Department of Statistics*, Florida State University, 2019; First Employment: Associate Statistical Programmer at Boehringer Ingelheim
- **Kelsa Bartley**, *School of Information*, Florida State University, 2017 Fall
- **Jessica Salinas**, School of Information, Florida State University, 2017 Fall

Undergraduate Students*Undergraduate Honor Thesis*

- **Mikayla Buckley**, Department of Biological Science, Florida State University, Thesis: Establishing a pipeline for the application of machine learning to specimen records for anomaly detection. Defended on 12/2019
- **Morgan Raskin**, School of Communication Science and Disorders, Thesis: Acoustic Analysis of Expressive Prosodic Impairment in People with Dementia. Florida State University. Defended on 05/2022
- **Parker Franklin**, School of Communication Science and Disorders. Thesis: Acoustical Analysis for Differentially Diagnosis of Dementia Types

Undergraduate Research or Independent Research

- **Luis Sanchez**, Florida State University, 2024-2025
- **Harjith Pradeep**, Florida State University, 2024-2025
- **Victorial Valko**, Florida State University, 2024-2025
- **Preetam Chamkura**, Florida State University, 2024-2025
- **Hansita Penikalapati**, FSU Young Scholar Program
- **Wade Rogers**, FSU Young Scholar Program
- **Angelique Deville**, Department of Computer Science, Florida State University, 2023-2024
- **Hailey Thompson**, Department of Computer Science, Florida State University, 2023-2024
- **Caroline Bennett**, Department of Computer Science, Florida State University, 2023-2024
- **Yash Alva**, Department of Computer Science, Florida State University, 2023-2024
- **Jessica Valyou**, Department of Biological Science, Florida State University, 2021 - 2023
- **Akhil Shiju**, Department of Biological Science, Florida State University, 2020 – 2022
- **Madelyn Dupuis**, 2021-2022
- **David Garner**, 2021-2022
- **Neissa Philemon**, 2021-2022
- **Shawntah Thomas**, 2021-2022
- **Brittney Chang**, 2019-2020
- **Daniel Bis**, Department of Computer Science, Florida State University, 2018 Summer
- **Sarah Mixon**, Department of Chemistry, Florida State University, 2017 Fall
- **Caleb Wilson**, Department of Biological Sciences, Florida State University, 2018 Fall – 2019 Spring
- **Brittany Ernst**, College of Human Sciences, Florida State University, 2018 Fall – 2019 Spring

PROFESSIONAL SERVICES**Professional Organization**

- Secretary, AMIA Knowledge Discovery and Data Mining Workgroup (2020-2022)
- Committee Member, AMIA Awards Committee (2021-2022)

Journal Editorship

- Editorial Board Member, *Journal of the American Medical Informatics Association*, 2025 - 2027
- Editorial Board Member, *Journal of Biomedical Informatics*, 2025 - 2027
- Associate Editor, *Journal of Healthcare Informatics Research*, 2023 - present
- Editorial Board Member, *BMC Digital Health*, 2022 - present

- Academic Editor, *PLOS ONE*, 2022 - present
- Associate Editor, *Smart Health*, 2023 - present
- Associate Editor, *BMC Medical Informatics & Decision Making*, 2018 - present
- Special Issue Lead Guest Editor, *BMC Medical Informatics & Decision Making*, Supplement on “Selected extended articles from the 2nd International Workshop on Semantics-Powered Data Analytics (SEPDA 2017)”. (Guest editing with Drs. Jiang Bian, Cui Tao, Rui Zhang, and Jingshan Huang)
- Special Issue Guest Editor, *Wireless Communication and Mobile Computing*, Special Issue on "Natural Language Processing Empowered Mobile Computing" (Guest editing with Drs. Tianyong Hao, Raymond Wong, Haoran Xie, Tak-Lam Wong, and Fu Lee Wang)
- Special Issue Lead Guest Editor, Special Issue on “Semantic-Powered Healthcare Engineering and Data Analytics”. *Journal of Healthcare Engineering* (Guest editing with Drs. Cui Tao, Michel Dumontier, Jiang Bian, and William Hogan)

Conference Organizing

Conference Chairs

- General Chair, The 12th IEEE International Conference on Health Informatics (ICHI 2024)
- Program Co-Chair, The 9th IEEE/ACM International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE 2024)

Workshop Chairs

- General Chair, The 12th IEEE International Conference on Health Informatics (ICHI 2024)
- Program Co-Chair, The 9th IEEE/ACM International Conference on Connected Health: Applications, Systems, and Engineering Technologies (CHASE 2024)
- Program Co-Chair, The 7th International Workshop on Semantics-Powered Health Data Analytics (SEPDA 2023), in conjunction with the 21th International Conference of Artificial Intelligence in Medicine (AIME 2023)
- Co-Chair, 2021 AMIA Knowledge Discovery and Data Mining Student Innovation Award Competition
- Lead Co-Chair, The 6th International Workshop on Semantics-Powered Health Data Analytics (SEPDA 2021), in conjunction with the 18th International Conference on Principles of Knowledge Representation and Reasoning
- Chair, 2020 AMIA Knowledge Discovery and Data Mining Student Innovation Award Competition
- Lead Co-Chair, The 5th International Workshop on Semantics-Powered Data Mining and Analytics (SEPDA 2020), in conjunction with 2020 IEEE International Conference on Bioinformatics and Biomedicine, Virtual, November 2020
- Lead Co-Chair, The 4th International Workshop on Semantics-Powered Data Mining and Analytics (SEPDA 2019), in conjunction with the 18th International Semantic Web Conference (ISWC 2019), October 2019
- Lead Co-Chair, The 3rd International Workshop on Semantics-Powered Data Analytics (SEPDA 2018), in conjunction with 2018 IEEE International Conference on Bioinformatics and Biomedicine, Madrid, Spain, December 2018
- Lead Co-Chair, The 2nd International Workshop on Semantics-Powered Data Analytics (SEPDA 2017), in conjunction with 2017 IEEE International Conference on Bioinformatics and Biomedicine, Kansas City, MO, USA, November 2017
- Lead Co-Chair, The 1st International Workshop on Semantics-Powered Data Analytics (SEPDA 2016), in conjunction with 2016 IEEE International Conference on Bioinformatics and Biomedicine, Shenzhen, China, December 2016

Program Committee Member

- 2024 International Conference on Artificial Intelligence in Medicine (AIME 2024)
- The 11th IEEE International Conference on Healthcare Informatics (ICHI 2023)
- The 2023 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL 2023)
- 2023 International Conference on Artificial Intelligence in Medicine (AIME 2023)
- The 10th IEEE International Conference on Healthcare Informatics (ICHI 2022)

- 2022 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2022)
- The 2022 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL 2022)
- First International Workshop on eXplainable Artificial Intelligence in Healthcare (XAI-Healthcare), in conjunction with AIME 2021
- The 2021 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL 2021)
- AMIA 2021 Informatics Summit
- 2021 International Conference on Artificial Intelligence in Medicine (AIME 2021)
- The 2020 ACM/IEEE-CS Joint Conference on Digital Libraries (JCDL 2020)
- 2020 International Conference on Intelligent Biology and Medicine (ICIBM 2020)
- 2020 International Conference on Artificial Intelligence in Medicine (AIME 2020)
- The 6th International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2020), in conjunction with VLDB 2020
- The 29th ACM International Conference on Information and Knowledge Management (CIKM 2020)
- AMIA 2020 Informatics Summit
- The 28th ACM International Conference on Information and Knowledge Management (CIKM 2019)
- 2019 Symposium on Information Management and Big Data (SIMBig 2019)
- 2019 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2019)
- The 5th International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2019).
- The 17th Conference on Artificial Intelligence in Medicine 2019 (AIME 2019)
- AMIA 2018 Knowledge Representation and Semantics Working Group Pre-Symposium
- The Fourth International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2018), in conjunction with VLDB 2018
- 2018 Symposium on Information Management and Big Data (SIMBig 2018)
- Pervasive Health and Personalised Medicine Crossroads: Challenges and Opportunities (Pervasive PerMed)
- 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)
- AMIA 2018 Annual Symposium (AMIA 2018)
- 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2017)
- 2017 Symposium on Information Management and Big Data (SIMBig 2017)
- The 6th International Conference on Health Information Science (HIS 2017)
- The Third International Workshop on Data Management and Analytics for Medicine and Healthcare Artificial Intelligence in Medicine 2017
- AMIA 2017 Annual Symposium (AMIA 2017)
- IEA/AIE 2017 Special Track on Intelligent Systems in Healthcare and mHealth for Health Outcomes
- 2016 International Workshop on Vaccine and Drug Ontology Studies (VDOS 2016), in conjunction with ICBO 2016
- The Second International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2016), in conjunction with VLDB 2016
- The 5th International Conference on Health Information Science (HIS 2016)
- The 4th International Workshop on Vaccine and Drug Ontology Studies (VDOS 2015)
- The 6th International Workshop on Semantic Web Informatics Management (SWIM 2014)
- The 3rd International Workshop on Vaccine and Drug Ontology Studies (VDOS 2014)

Proceedings Editorial Committee Member

- Proceedings of the 17th World Congress on Health and Biomedical Informatics (MEDINFO 2019)
- Proceedings of the 16th World Congress on Health and Biomedical Informatics (MEDINFO 2017)
- Proceedings of the 15th World Congress on Health and Biomedical Informatics (MEDINFO 2015)

Session Chair

- AMIA 2017 Annual Symposium (S60: Oral Presentations - Terminology Quality Evaluation)
- The 38th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC 2016) (IGNITE Sessions of Biomedical and Health Informatics: WeCT16, FrCT19)

- AMIA 2015 Summit on Clinical Research Informatics (CRI-30: Ontology-based Semantic Methods)

Conference Volunteer

- The 34th ACM International Conference on Management of Data (SIGMOD 2013)
- AMIA 2010 Annual Symposium (AMIA 2010)

Panel Reviewing

- National Institutes of Health
 - Panelist for the Clinical Informatics and Digital Health (CIDH) Study Section, NIH, June 2024
 - Panelist for MCST-14 (16)B: Small Business: Computational, Modeling, and Biodata Management, NIH, April 2024
 - Panelist for Special Emphasis Panel ZRG1 IVGH-A (50), NIH, March 2024
 - Panelist for Special Emphasize Panel for Investigator-Initiated Program Project Applications (P01), National Institute of Allergy and Infectious Diseases (NIAID) / NIH, December 2023
 - Panelist for the Clinical Informatics and Digital Health (CIDH) Study Section, NIH, June 2023
 - Panelist for ZRG1 CCHI-X (57) PAR-21-303: Mobile Health Technology and Outcomes in Low and Middle Income Countries, NIH, February 2023 – March 2023
- National Science Foundation, 2021
- Canada Foundation for Innovation, 2020
- University of Florida Clinical and Translational Science Institute, 2020
- Office of Research Development, Florida State University, 2018
- Kentucky Science & Engineering Foundation, 2017

Peer Reviewing

Journal Reviewer

2024 – present NEJM AI
 2023 – present Ophthalmology Science
 2023 – present npj Aging
 2023 – present American Journal of Transplantation
 2023 – present Scientific Data
 2022 – present Nature Medicine
 2022 - present Genes & Diseases
 2021 - present Library and Information Science Research
 2021 - present Scientometrics
 2021 – present Expert Systems with Applications
 2021 – present Library and Information Science Research
 2021 – present Patterns
 2020 – present Neural Computing and Applications
 2019 - present Translational Behavioral Medicine
 2019 - present Journal of Clinical Epidemiology
 2019 - present Artificial Intelligence in Medicine
 2019 - present NPJ Digital Medicine
 2018 - present Frontier in Pharmacology
 2018 - present BMJ Quality & Safety
 2018 - present International Journal of Pharmaceutics
 2018 - present Health Communication
 2018 - present Health Informatics Journal
 2018 - present Journal of Healthcare Informatics Research
 2017 - present JAMIA Open
 2017 - present IEEE ACCESS
 2017 - present Data and Knowledge Engineering
 2017 - present Journal of the American Medical Informatics Association
 2017 - present BMJ Open
 2017 - present International Journal of Data Mining and Bioinformatics

2017 - present Cogent Business and Management
 2017 – present International Journal on Semantic Web and Information Systems
 2017 – present Health Information Science and Information
 2017 – present Cogent Medicine
 2017 – present JMIR Medical Informatics
 2017 - present JMIR Public Health and Surveillance
 2017 – present Informatics
 2016 – present Journal of Medical Internet Research
 2016 – present Applied Clinical Informatics
 2016 – present PLOS One
 2016 – present BioData Mining
 2016 – present Journal of the Association for Information Science and Technology
 2016 – present BMC Research Notes
 2015 – present Semantic Web Journal
 2015 – present BMC Medical Informatics & Decision Making
 2015 – present Intelligent Automation & Soft Computing
 2014 – present Journal of Biomedical Semantics
 2014 – present Journal of Biomedical Informatics
 2013 - present Methods of Information in Medicine

Conference/Workshop Reviewer

- AMIA 2021 Annual Symposium
- iConference 2021
- iConference 2019
- 2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2018)
- The 9th ACM Conference on Bioinformatics, Computational Biology, and Health Informatics (BCB 2018)
- AMIA 2017 Joint Summits on Translational Science
- 2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM 2017)
- 2017 Symposium on Information Management and Big Data (SIMBig 2017)
- The 6th International Conference on Health Information Science (HIS 2017)
- The 16th World Congress on Medical and Health Informatics (MEDINFO 2017)
- AMIA 2017 Joint Summits on Translational Science
- International Conference on Intelligent Biology and Medicine (ICIBM 2016)
- The 5th International Conference on Health Information Science (HIS 2016)
- AMIA 2016 Annual Symposium (AMIA 2016)
- IEA/AIE 2017 Special Track on Intelligent Systems in Healthcare and mHealth for Health Outcomes
- The Second International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH 2016).
- The First International Workshop on Biomedical Data Integration and Discovery (BMDID 2016)
- 2016 International Workshop on Vaccine and Drug Ontology Studies (VDOS 2016)
- 2015 International Workshop on Biomedical Data Mining, Modeling, and Semantic Integration
- AMIA 2016 Joint Summits on Translational Science
- The 4th International Workshop on Vaccine and Drug Ontology Studies (VDOS 2015) (Four papers)
- AMIA 2015 Annual Symposium (AMIA 2015) (Three papers)
- The 6th International Conference on Biomedical Ontologies (ICBO 2015) (One paper)
- The 15th World Congress on Health and Biomedical Informatics (MEDINFO 2015) (Three papers)
- AMIA 2015 Joints Summits on Translational Science (AMIA CRI 2015) (Five abstracts)
- The 3rd International Workshop on Vaccine and Drug Ontology Studies (VDOS 2014) (Three papers)
- The 5th International Conference on Biomedical Ontologies (ICBO 2014) (One paper)
- The 25th International Conference on Database and Expert System Applications (DEXA 2014) (Two papers)
- AMIA 2014 Joints Summits on Translational Science (Three papers; one abstract)
- AMIA 2014 Annual Symposium (AMIA 2014) (Three abstracts)
- AMIA 2013 Annual Symposium (AMIA 2013) (One paper)

Service in University-Level Centers/Organizations at Florida State University

- Methods Core Lead, Center for Translational Behavioral Science, 2018 - 2021
- Informatics Lead, UF-FSU Clinical and Translational Science Award (UF-FSU CTSA), 2019 – present
- Director of the Biostatistics, Informatics, and Research Design of UF-FSU CTSA, 2020 - present
- Management Board Member, FSU Research Computing Center, 2021 – 2024

Service in College-Level Committees at Florida State University

- Member, Academic Affairs Committee, College of Communication & Information, 2017 – 2020
- Subject Matter Expert of Health Sciences, College of Communication & Information, 2022 - 2024

Service in School-Level Committees at Florida State University

- Member, Evaluation, Promotion, and Tenure Committee, School of Information, 2020 - 2023
- Program Chair, Master of Science in Information Technology, 2019 - 2024
- Co-Chair, Education Committee, School of Information, 2018 - 2019
- Member, Operation Committee, School of Information, 2018 - 2019
- Member, Education Committee, School of Information, 2017 - 2018
- Member, Outreach Committee, School of Information, 2016 - 2017
- Member, Faculty Search Committee, School of Information, 2016 - 2018
- Member, Research Committee, School of Information, 2015 - 2017

Prior Service in University Committees at New Jersey Institute of Technology

2013	Administrative Affairs Council, New Jersey Institute of Technology
2013	Committee on Academic Affairs, New Jersey Institute of Technology
2013	Committee on University Awards, Lectures, and Commencement, New Jersey Institute of Technology
2012-2013	Shared Governance Steering Committee, New Jersey Institute of Technology

Selected Leadership Activities

2013 – 2014	Sigma Chapter of Alpha Epsilon Lambda National Honor Society <i>President</i> Reviewed candidates for the honor society. Planned the induction ceremony. Acted as liaison between society members and graduate administrators
2012 – 2013	Graduate Student Association, NJIT, Newark NJ <i>President / Vice President-Administration</i> Acted as liaison between graduate students and university administration. Chaired the Ninth Annual Graduate Student Research Day (80+ posters, 200+ attendees). Organized various university-wide events such as thesis and dissertation workshop, trips, etc. Supervised 17 GSA affiliated academic and social clubs.
2011 – 2012	NJIT Chinese Students and Scholars Association <i>President</i> Managed annual budget of CSSA and coordinated varieties of events: career development seminars, entrepreneurship workshops, orientation programs, festivity gala, new member elections, basketball tournaments, etc.

SELECTED HONORS & AWARDS

- Third Place of the AMIA 2024 KDDM Innovation Award, November 2024
- IEEE Senior Member, October 2023
- Lois Lunin Award, *Association for Information Science and Technology (ASIS&T)*, June 2022
- Outstanding Faculty Research Award, *College of Communication & Information, Florida State University*, April 2022
- Inducted to Fellow of American Medical Informatics Association (FAMIA), May 2022

- Best Interdisciplinary Research Award, *2021 Aging and Health Informatics Conference*, December 2021
- Outstanding Faculty Leader/Builder Award, *College of Communication & Information, Florida State University*, April 2021
- Outstanding Faculty Research Award, *College of Communication & Information, Florida State University*, April 2019
- 2018 FSU University-Wide Research Recognition Dinner Invitee, *Office of Research, Florida State University*, April 2018
- Distinguished Paper Award, *AMIA 2017 Annual Symposium*. November 2017
- Outstanding Faculty Research Award, *College of Communication & Information, Florida State University*, April 2017
- Provost's Travel Grant, *Florida State University*, November 2016
- Travel Grant, *NSF South Big Data Hub*, September 2016
- Travel Grant, *NIH Future Research Leaders Conference*, Bethesda, MD, September 2016
- Planning Grant, *Institute for Successful Longevity, Florida State University*, May 2016
- Runner Up, Most Interesting Preliminary Results Paper Award, *iConference 2016*, March 2016
- Travel Grant, *Transatlantic Data Science Workshop*, Bethesda, MD March 1-2, 2016
- First Year Assistant Professor Grant, *Council for Research and Creativity, Florida State University*, May – August 2016
- Distinguished Paper Award, *AMIA 2015 Annual Symposium*. November 2015
- Amazon Web Services Education Research Grant Award, *Amazon Inc.* December 2015 - November 2016
- Provost's Travel Grant, *Florida State University*, September 2015
- Student Paper Award Nominee, *MEDINFO 2015*, August 2015
- Finalist of Student Paper Competition, *AMIA 2015 Summit on Clinical Research Informatics*, 2015
- 3rd Place Poster Award of Columbia University Postdoc Research and Career Symposium, *Office of Postdoctoral Affairs, Columbia University*, 2014
- Outstanding Student Leader Award 2013-14 (Graduate), *NJIT*, 2014
- Student Achievement Award, *NJIT GSA*, 2012
- Distinguished Graduate of Beijing, *Beijing Municipality Education Commission*, 2007
- Delegate of China, *the 7th China Synergy Program for Outstanding Youth*, 2006
- Student Fellowship, *BUPT*, 2004, 2006, 2007
- Excellent Student Leader, *BUPT*, 2004, 2005, 2006

PROFESSIONAL MEMBERSHIP

Sigma Xi, the Scientific Research Honor Society, 2020 – present

Alpha Epsilon Lambda, National Graduate and Professional Honor Society, 2012 – present

IEEE, 2015 – present

American Medical Informatics Association (AMIA), 2010 – present

INDUSTRY EXPERIENCE

BearingPoint, Inc. Beijing, China, 01/2003 – 03/2003

- *Management Analyst Intern*, implement Oracle ERP system for China Netcom Corp.

TECHNICAL SPECIALTIES

- **Biomedical Terminologies:** UMLS, SNOMED CT, NCI, ICD, BioPortal
- **Operation System:** Unix, Linux, MacOS, Solaris, Windows
- **Programming/scripting languages:** Python, Java, C/C++, PL/SQL, MatLab, R
- **Web:** Amazon EC2/Elastic Beanstalk, Flask, MVC, Ruby on Rails, PHP, JSP, HTML/CSS
- **Database:** MySQL, PostgreSQL, Oracle, SQL Server

REFERENCES

Additional references available upon request