

Curriculum Vitae

NAME: Lixia YAO

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EDUCATION

Ph.D. in Biomedical Informatics **2010**
Columbia University, New York, NY
Advisor: Andrey Rzhetsky

M.Sc. in Computational Sciences **2004**
National University of Singapore, Singapore
Advisor: Yuzong Chen

B.Eng. in Chemical Engineering **2002**
Dalian University of Technology, Dalian, China

ACADEMIC APPOINTMENTS

09/2016 – present Assistant Professor in Biomedical Informatics
Senior Associate Consultant I
Department of Health Sciences Research, Mayo Clinic, Rochester, MN

08/2013 – 09/2016 Assistant Professor in Health Informatics
Department of Software and Information Systems
The University of North Carolina at Charlotte, Charlotte, NC

05/2010 – 08/2013 Principal Investigator
Department of Quantitative Sciences, GlaxoSmithKline, King of Prussia, PA

CAREER HIGHLIGHTS

- My research has been published in high impact peer-reviewed journals.
 - a. **Yao L***, Li Y, Ghosh S, Evans J, Rzhetsky A. (2015) Health ROI as a measure of misalignment of biomedical needs and resources. *Nature Biotechnology*, 33(8): 807-811
 - b. **Yao L**, Evans JA, and Rzhetsky A. (2009) Novel opportunities for computational biology and sociology in drug discovery. *Trends in Biotechnology*, 27(9): 531-540
 - c. **Yao L**, and Rzhetsky A. (2008) Quantitative systems-level determinants of human genes targeted by successful drugs. *Genome Research*, 18(2):206-213 (cover article)

- My career development (K01) proposal, titled *A Research Opportunity Index to Measure Biomedical Research Disparities across the Disease Landscape* (1 K01 LM012102-01A1) is funded by National Library of Medicine for 2016-2019, based on a perfect impact score of 10.
- Voted as the Vice Chair, AMIA Knowledge Discovery and Data Mining Working Group, 2018
- Early Career Reviewer at the Center for Scientific Review (CSR), NIH, 2017
- Invited talk titled *Leveraging NLP and diverse data sources to mine drug repositioning, adverse drug events and patient-reported medication outcomes*, FDA, Silver Spring, MD, 2017
- Currently serve as the Academic Editor for PLoS ONE; Guest Editor, *Frontier in Pharmacology*; Editorial Board Consultant, *Clinical Therapeutics*; Associate Editor, *BMC Medical Informatics and Decision Making*
- Program Chair of the 2nd Workshop on Data Management and Analytics for Medicine and Healthcare at 42nd International Conference on Very Large Data Bases (VLDB), India, 2016
- Best Paper Award, Data Mining in Biomedical Informatics and Healthcare (DMBIH) Workshop, IEEE International Conference on Data Mining (ICDM), 2015
- *Benchmarking Ontologies: Bigger or Better?* Oral presentation in the Highlight Track, 19th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB), Vienna, Austria, 2011
- Annual student research award, *Nucleic Acid Research* and *Oxford Journals*, 2008

PROFESSIONAL ORGANIZATIONS

2017 – Present	AcademyHealth
2017 – Present	America's Health Insurance Plans (AHIP)
2017 – Present	International Society of Applied Intelligence (ISAI)
2017 – Present	International Institute of Forecasters (IIF)
2013 – Present	Health Information and Management Systems Society (HIMSS)
2007 – 2010	International Society for Computational Biology (ISCB)
2005 – Present	American Medical Information Association (AMIA)

PROFESSIONAL ACTIVITIES

Intramural Committees:

2017 – present	Web development subcommittee, vice chair, Division of Biomedical Statistics and Informatics, Department of Health Sciences Research, Mayo Clinic
2014 – 2016	Faculty Competitive Grants Review Committee, The University of North Carolina at Charlotte
2014 – 2015	PhD Admission Committee, Department of Software and Information Systems, The University of North Carolina at Charlotte
2014 – 2015	Graduate Education Committee, Department of Software and Information Systems, The University of North Carolina at Charlotte
2014 – 2015	College Research Committee, College of Computing and Informatics, University of North Carolina at Charlotte
2013 – 2014	Faculty Research Committee, Department of Software and Information Systems, The University of North Carolina at Charlotte

Extramural Committees:

AMIA Knowledge Discovery and Data Mining Working Group

2018 – present Vice Chair

WHO Family of International Classifications (WHO-FIC) Network, Update and Revision Committee:

2017 – present Observer

The Observational Health Data Sciences and Informatics (OHDSI) China Working Group

2017 – present Lead of Data Analysis Sub-Group

Conference Program Committee Chair/Track Chair:

2017 Knowledge Discovery in Translational Biomedical Informatics workshop, The IEEE International Conference on Bioinformatics and Biomedicine (BIBM), Kansas City, USA

2016 The 2nd Workshop on Data Management and Analytics for Medicine and Healthcare at the 42nd International Conference on Very Large Data Bases (VLDB), New Delhi, India

Conference Program Committee Member:

2018 Healthcare Information and Management Systems Society (HIMSS) annual conference, Las Vegas, NV, USA

2018 The 11th International Conference on Health Informatics (HEALTHINF), Madeira, Portugal

2017 Special Track on Intelligent Systems in Healthcare and mHealth for Health Outcomes, in conjunction with the 30th International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems (IEA/AEI), Arras, France

2016 The 10th International Conference on Health Informatics, Rome, Italy

2015 The First International Workshop on Data Management and Analytics for Medicine and Healthcare (DMAH), in conjunction with the 41st International Conference on Very Large Data Bases, Hawaii, USA

2015 The 8th International Conference on Health Informatics (HEALTHINF), Lisbon, Portugal

2013 The 6th International Conference on Health Informatics (HEALTHINF), Barcelona, Spain

2011 Sharing Science Committee, GSK R&D, King of Prussia, PA, USA

Grant Reviewer:

2018 Blue KC Outcomes Review, Kansas City Area Life Sciences Institute (KCALSI)

2017 Nexus of animal and human health research grants, Kansas City Area Life Sciences Institute (KCALSI)

2017 SPARC grant program, University of Wisconsin-Milwaukee

2017 Biomedical Computing and Health Informatics (BCHI) study session, NIH

2015 Faculty Competitive Research Grants, The University of North Carolina at Charlotte

Editorial Activities:Editorial Board Member:

2015 – 2018 PLoS ONE, Academic Editor

2018 Frontier in Pharmacology, Guest Editor

2018 Clinical Therapeutics, Editorial Board Consultant

2018 – present Associate Editor, BMC Medical Informatics and Decision Making

2018 – present JAMIA Open

Journal Reviewer:

BioMed Research International

PLoS ONE

PLoS Computational Biology

Applied Clinical Informatics

The Journal of Pharmacogenomics

Bioinformatics

Current Pharmaceutical Biotechnology

European Journal of Medicinal Chemistry

Theoretical Chemistry Accounts: Theory, Computation, and Modeling

Computer Methods and Programs in Biomedicine

Scientific Report

Journal of Medical Internet Research (JMIR)

Journal of Healthcare Informatics Research

BMC Bioinformatics

Data Mining and Knowledge Discovery

BMC Public Health

Clinical Therapeutics

Conference Reviewer:

2018 IEEE International Conference on Healthcare Informatics (ICHI)

2017 AMIA Annual Symposium

2015 AMIA Annual Symposium

2015 AMIA Joint Summits on Translational Science

2010 AMIA Joint Summits on Translational Science

2008 AMIA Joint Summits on Translational Science

Honors/Awards:

2018 Finalist in the 2018 HSRProj Research Competition, hosted by the National Library of Medicine and AcademyHealth

2015 Best Paper Award, Data Mining in Biomedical Informatics and Healthcare (DMBIH) Workshop, IEEE International Conference on Data Mining (ICDM)

2015 Third Place Award in the Research Paper Competition, the 15th Annual Graduate Research Symposium, The University of North Carolina at Charlotte

2009 National Graduate Student Research Festival Award, NIH

2008 Annual Student Research Award, Nucleic Acid Research and Oxford Journals

2008 Best Poster Award on the 4th International Society for Computational Biology (ISCB) Student Council Symposium

2005 Fellowship, Graduate School of Arts and Sciences, Columbia University

Invited Talks/Presentations:

Invited Talks:

2017 Leveraging NLP and diverse data sources to mine drug repositioning, adverse drug events and patient-reported medication outcomes, FDA, Silver Spring, MD

2016 Health research opportunity index measures the misalignment of biomedical needs and resources, Ohio State University, Columbus, OH

2016 Health ROI as a measure of misalignment of biomedical needs and resources, Weill

- Cornell Medical College, New York, NY
- 2016 A health research opportunity index reveals the (ir)rational allocation of research resources to health needs, University of Pittsburgh, Pittsburgh, PA
- 2016 A health research opportunity index reveals misbalance between research resources and disease burden across the medical landscape, Brown University, Providence, RI
- 2016 A missing piece in drug discovery and development - mining patient-reported medication outcomes on social media, Xiamen University, China
- 2015 Understanding the (ir)rationality of research resource allocation to health needs in the US, Tongji University, China
- 2015 A health research opportunity index reveals misbalance between research resources and disease burden across the medical landscape, the University of Texas Health Science Center at Houston, Houston, TX
- 2013 Drug repositioning – lessons learned from pharmaceutical industry, Wake Forest University, Winston Salem, NC
- 2013 A bird's-eye view of health informatics, The University of North Carolina at Charlotte, Charlotte, NC
- 2010 Towards computational drug discovery, GlaxoSmithKline, King of Prussia, PA
- 2010 Inside pharmaceutical R&D: a computational biologist's perspective, Peking University Health Science Center, Beijing, China

Oral Presentations:

- 2016 Evaluation of the informatician perspective: determining types of Research Papers Preferred by Clinicians, The 5th International Conference on Intelligent Biology and Medicine (ICIBM), Houston, TX
- 2016 Health research opportunity index measures the misalignment of biomedical needs and resources, The 2nd International Symposium on Bioinformatics and Drug Design, Chongqing, China
- 2015 A survey of social media for understanding patient-reported medication outcomes. The American Medical Informatics Association Annual Symposium, San Francisco, CA
- 2012 Leveraging Electronic Health Records for Drug Discovery, Bio-IT World Conference & Expo, Boston, MA
- 2011 Benchmarking Ontologies: Bigger or Better? Highlight Track presentation, 19th Annual International Conference on Intelligent Systems for Molecular Biology (ISMB), Vienna, Austria

Poster Presentations:

- 2016 A Proof-of-Concept Study of Mining Social Media to Reposition Drugs. The International Society For Pharmacoeconomics and Outcomes Research (ISPOR) 21st Annual International Meeting, Washington DC
- 2016 A Content Analysis of Patient-Reported Medication Outcomes on Social Media. Bio-IT world conference, Boston MA
- 2015 30 Day Hospital Readmission Analysis. 2015 IEEE International Conference on Big Data, Santa Clara CA
- 2015 A Survey of Clinicians' Literature Reading Preferences. AMIA Joint Summits on Translational Science, San Francisco
- 2013 Systematic Evaluation of Unmet Medical Needs from Multiple Dimensionalities – A Feasibility Study. AMIA Annual Symposium, Washington DC
- 2012 Mining Electronic Health Records to Identify Drug Combinations. AMIA Annual Symposium, Chicago, IL
- 2011 Mining Electronic Health Records to Repositioning Drugs: a Feasibility Study. AMIA Annual Symposium, Washington DC

- 2009 Quantitative Systems-Level Determinants of Drug Targets. The National Institute of Health, Bethesda MD
- 2008 Quantitative Systems-Level Determinants of Drug Targets. The 16th International Conference on Intelligent Systems for Molecular Biology (ISMB), Toronto, Canada (Best poster award)

Tutorials, Workshops and Panels:

- 2011 Model-Based Drug Development: How In-silico Approaches Are Reshaping the Clinical Enterprise, Drug Information Association 47th Annual Meeting, Chicago, IL
- 2010 Towards Mining Drug-Phenotype Data: Context-Based Calculation of Probabilistic Semantic Similarity, Pacific Symposium on Biocomputing (PSB), Big Island, HI

RESEARCH PROGRAM

Current Grants:

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|---|-----------------------------|-------------------------|
| Career Development Award (7K01LM012102-02) | Lixia Yao (PI) | 05/01/2016 – 04/30/2019 |
| National Library of Medicine, | ADC: \$551,879 | |
| Research Pipeline K2R Program | Lixia Yao (PI) | 01/21/2018 – 01/20/2019 |
| Mayo Clinic, | ADC: \$75,000 | |
| Knowledge and Evaluation Research Unit (KERN) | Lixia Yao (co-PI) | 07/01/2017– 06/30/2018 |
| Mayo Clinic, | ADC: \$5,000 | |
| CTSA (UL1 TR000135) | Lixia Yao (Co-Investigator) | 09/01/2017 – 08/30/2022 |
| The National Center for Advancing Translational Sciences (NCATS), | | |
| ADC: \$364,000 as the Data Science and Analytic Lead | | |
| OptumLab | Lixia Yao (Co-Investigator) | 10/01/2016 – 12/31/2018 |
| Mayo Clinic, | ADC: 10% efforts | |

Completed Grants:

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| North Carolina Data Science and Analytics Initiative | Lixia Yao (PI) | 09/01/2015 – 06/30/2017 |
| UNC Charlotte, | ADC: \$77,250 | |
| CCI Faculty Innovation Grant | Lixia Yao (PI) | 01/31/2016 – 06/30/2016 |
| UNC Charlotte, | ADC: \$31,500 | |
| NSF I-Corps Accelerator | Lixia Yao (PI) | 05/19/2015 – 05/18/2016 |
| UNC Charlotte Site, | ADC: \$3,000 | |
| Faculty Research Grant | Lixia Yao (PI) | 07/01/2014 – 12/31/2015 |
| UNC Charlotte, | ADC: \$3,889 | |
| Data Science and Business Analytics Seed Fund | Lixia Yao (co-PI) | 12/01/2014 – 06/30/2015 |
| UNC Charlotte, | ADC: \$38,587 (CCI portion) | |

PUBLICATIONS

Peer Reviewed Articles - Journal:

1. MfeCNN: Mixture Feature Embedding Convolutional Neural Network for Data Mapping. Li D, Huang M, Li X, Ruan Y, Yao L (accepted by IEEE transaction on NanoBioSciences)
2. A feasibility study on identifying drinking-related contents in Facebook through mining heterogeneous data. ElTayeby O, Eaglin T, Abdullah M, Burlinson D, Dou W, **Yao L***. (accepted by the Health Informatics Journal)
3. Public Opinions Toward Diseases: Infodemiological Study on News Media Data Characterizing public opinions towards diseases by mining news media data. Huang M, ElTayeby O, Zolnoori M, Yao L*. Journal of Medical Internet Research, 20(5):e10047 (2018)
4. Predicted Arabidopsis Interactome Resource and Gene Set Linkage Analysis: A Gene Set Annotation Tool. Yao H, Wang X, Chen P, Ling H, Kang J, **Yao L**, Mao C, and Chen X, Plant Physiology, (2018)
5. ADReCS-Target: target profiles for aiding drug safety research and application. Huang L, He Q, Liu K, Cheng J, Zhong M, Chen L, **Yao L**, Ji Z., Nucleic Acids Research 45 (D1): (2017)
6. ADMETNet: the knowledgebase of pharmacokinetics and toxicology network. Xu Q, Liu K, Lin X, Qin Y, Chen L, Cheng J, Zhong M, He Q, Li Y, Wang T, Pan J, Peng M, **Yao L**, Ji Z., Journal of Genetics and Genomics, 44(5), 273-276, (2017)
7. Evaluation of the informatician perspective: determining types of research papers preferred by clinicians. Ru B, Wang X, **Yao L***, BMC Medical Informatics and Decision Making, 17(2): 74. (2017)
8. Pattern genes suggest functional connectivity of organs. Qin Y, Pan J, Cai M, **Yao L**, Ji Z. Scientific Reports, 6:26501 (2016)
9. Health ROI as a measure of misalignment of biomedical needs and resources. **Yao L***, Li Y, Ghosh S, Evans JA, Rzhetsky A. Nature Biotechnology, 33(8): 807-811 (2015)
10. In Silico search for drug targets of natural compounds. **Yao L***. Current Pharmaceutical Biotechnology. 13(9):1632-1639. (2012)
11. Electronic health records: implications for drug discovery. **Yao L**, Zhang Y, Li Y, Sanseau P and Agarwal P. Drug Discovery Today. 16(13-14):594-599 (2011)
12. Benchmarking ontologies: bigger or better? **Yao L**, Divoli A., Mayzus I, Evans JA, and Rzhetsky A. PLoS Comput Biol. 7(1): e1001055. (2011)
13. Novel opportunities for computational biology and sociology in drug discovery. **Yao L**, Evans JA, and Rzhetsky A. Trends in Biotechnology, 28(4):161-170. (2010)
14. Quantitative systems-level determinants of human genes targeted by successful drugs. **Yao L**, and Rzhetsky A. Genome Research, 18(2): 206-213. (2008) (Cover Article)
15. Does drug-target have a likeness? Chen X, Fang Y, **Yao L**, Chen Y, Xu H. Methods of Information in Medicine, 46(3):360-6. (2007)
16. Internet resources related to drug action and human response: a review. **Yao L**, Wu Z, Ji Z, Chen Y, and Chen X. Applied bioinformatics 5(3): 131-139. (2006)

17. Internet resources for proteins associated with drug therapeutic effects, adverse reactions, and ADME. Ji Z, Sun L, Chen X, Zheng C, **Yao L**, Han L, Cao Z, Wang J, Yeo WK, Cai C, and Chen Y. Drug Discovery Today, 8(12): 526-529. (2003)
18. KDBI: kinetic data of bio-molecular interactions database. Ji Z, Chen X, Zheng C, **Yao L**, Han L, Yeo WK, Chung P, Puy H, Tay YT, Muhammad A, and Chen Y. Nucleic Acids Research, 31(1): 255-257. (2003)

Peer Reviewed Articles - Conference:

19. A Publication-based Popularity Index for Healthcare Dataset Ranking. Shi J, Zheng M, Yao L, Ge Y. The Sixth IEEE International Conference on Healthcare Informatics (ICHI), New York, NY, (2018)
20. Terminology Enabled Spatio-Temporal Analysis and Visualization for Preterm Birth Data in the US. Wang K, **Yao L**. The 11th International Conference on Health Informatics (HEALTHINF), Funchal, Madeira, Portugal (2018)
21. DIR – A semantic information resource for healthcare datasets. Shi J, Zheng M, **Yao L**, Ge Y. The IEEE International conference on Bioinformatics and Biomedicine (BIBM) 2017, Kansas City, MO (2017) (Acceptance rate: 19%)
22. Visual FHIR: An Interactive Browser to Navigate HL7 FHIR Specification. Hong N, Wang K, **Yao L**, Jiang G. The Fifth IEEE International Conference on Healthcare Informatics (ICHI), The International Workshop of Knowledge Discovery in Translational Biomedical Informatics, Park City, UT (2017)
23. Detecting drinking-related contents on social media by classifying heterogeneous data types. ElTayeb O, Eaglin T, Abdullah M, Burlinson D, Dou W, **Yao L***. The 30th International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems (Special Track: Intelligent Systems in Healthcare and mHealth for Health Outcomes), Arras, France (2017)
24. Estimating disease burden using Google Trends and Wikipedia data. Qiu R, Hadzikadic M, **Yao L***. The 30th International Conference on Industrial, Engineering, Other Applications of Applied Intelligent Systems (Special Track: Intelligent Systems in Healthcare and mHealth for Health Outcomes), Arras, France (2017)
25. Identifying serendipitous drug usages in patient forum data – a feasibility study. Ru B, Warner-Hillard C, Ge Y, **Yao L***, The 10th International Conference on Health Informatics (HEALTHINF), Porto, Portugal (2017) (Acceptance rate: 21%)
26. A content analysis of patient-reported medication outcomes on social media. Ru B, Harris K, **Yao L***. The Data Mining in Biomedical Informatics and Healthcare (DMBIH) workshop, IEEE International Conference on Data Mining (ICDM), Atlantic City, NJ (2015) (Best Paper Award)

Peer Reviewed Short Papers/Extended Abstracts:

1. Integration of Accountable Care Organization and Additional Hospital Data into CMS Referral Analytics System. Ru B, Wu Q, Wang X, **Yao L**, Jia Y. The Fifth IEEE International Conference on Healthcare Informatics (ICHI 2017), Park City, Utah, 2017
2. Identification of clinically meaningful clusters of multi-morbidity in a national cohort of adults using unsupervised learning. Ngufor C, McCoy R, **Yao L**, Sangaralingham L, Dunlay S, Shah N. The American Medical Informatics Association Annual Symposium, Washington DC, 2017
3. A survey of social media for understanding patient-reported medication outcomes. Harris K, Ru B, **Yao L***. The American Medical Informatics Association Annual Symposium, San Francisco, CA, 2015

Peer Reviewed Abstracts/Posters:

4. A proof-of-concept study of mining social media to reposition drugs. Ru B and **Yao L***, The International Society For Pharmacoeconomics and Outcomes Research (ISPOR) 21st Annual International Meeting, Washington DC, 05/2016
5. 30 day hospital readmission analysis. Maddipatla R, Hadzikadic M, Misra-Patel D, **Yao L***. 2015 IEEE International Conference on Big Data, Santa Clara CA, 11/2015
6. Systematic evaluation of unmet medical needs from multiple dimensionalities – A Feasibility Study, Li Y and **Yao L***. American Medical Informatics Association (AMIA) Annual Symposium, Washington DC, 11/2013
7. Mining electronic health records to identify drug combinations, **Yao L**, Agarwal P. American Medical Informatics Association (AMIA) Annual Symposium, Chicago, IL, 11/2012
8. Mining electronic health records to repositioning drugs: a feasibility study, **Yao L**, Agarwal P. American Medical Informatics Association (AMIA) Annual Symposium, Washington DC, 10/2011
9. Towards mining drug-phenotype data: context-based calculation of probabilistic semantic similarity, **Yao L**, Rzhetsky R. Pacific Symposium on Biocomputing (PSB), Big Island, Hawaii, 01/2010
10. Quantitative systems-level determinants of drug targets, **Yao L**. National Graduate Student Research Festival, The National Institute of Health, Bethesda MD, 11/2009
11. Quantitative systems-level determinants of drug targets, **Yao L**, Rzhetsky R. International Conference on Intelligent Systems for Molecular Biology (ISMB), Toronto, Canada, 07/2008 (Best Poster Award)

Book Editors:

1. Data Management and Analytics for Medicine and Healthcare. Wang F, **Yao L**, Luo G. Springer, 2017 (ISBN 978-3319577409)

Other publications:

1. The application of information technology in drug discovery and development. Yao L*, Yang L, Overseas Scholars, a Journal of Chinese Association for Science and Technology, USA, 2013 (ISSN: 1556-861X)

- **Manuscripts submitted:** A literature review of social media based data mining for health outcomes research. Ru B, Yao L* (a book chapter contributed to *Social Web and Health Research*)
- An intelligent, multi-source approach to facilitate accurate information for health providers. Matthew J. Cook, Thomas Agresta, Lixia Yao, Marie Smith, Xiaoyan Wang. (submitted to BMC Medical Informatics and Decision Making)
- Detecting pharmacovigilance signals combining electronic medical records with spontaneous reports: a case study of conventional disease-modifying antirheumatic drugs for rheumatoid arthritis. Wang L, Mojarad M, Ji Z, Liu S, Liu K, Sungrim M, Shen F, Wang Y, **Yao L**, Davis J, Liu H. (submitted to Frontier in Pharmacology)
- An interactive visualization tool for HL7 FHIR specification browsing and profiling. Hong N, Wang K, Wu S, Shen F, **Yao L**, Jiang G. (submitted to Journal of Health Informatics Research)
- Birth weight-associated DNA methylation discordances in newborn monozygotic twins indicate sensitization of IFN-gamma immune response in low-birth-weight newborns. Hou N, Hai L, Gai W, Chan H, Pan J, Yao Q, **Yao L**, Xu C, Dong M, Zhou J, Zhu X, Wu Y, Ding G, Lu L, Sheng J, Chen X (submitted to The Journal of Pediatrics)
- Developing a Healthcare Dataset Information Resource (DIR) Based on Semantic Web. Shi J, Zheng M, **Yao L**, Ge Y. (Submitted to BMC Medical Genomics)
- Learning Complex Network for Systematic Drug Safety Profiling. Liu K, Xu H, Qin Y, Ding R, He Q, **Yao L**, You P, Xiang Y, Ji Z. (submitted to molecular systems biology)
- Characterizing treatment strategies of intrahepatic bile duct cancer: Literature analysis using text mining. short paper submitted to The 2nd International Workshop on Healthcare Knowledge Discovery and Management (IHKDM 2018), in conjunction with the IEEE International Conference on Healthcare Informatics (ICHI 2018)

TEACHING & MENTORING ACTIVITIES

Graduate Courses:

2017	CSTC 5025: Introduction to Regulatory Science, Mayo Clinic, Co-Instructor
2016	ITIS 8010: Foundation of Health Informatics, UNC Charlotte, Instructor
2015	HCIP 6160/DSBA 6160: Database Systems, UNC Charlotte, Instructor
2015	HCIP 6396: Business Intelligence in Health Informatics, UNC Charlotte, Instructor
2014 – 2016	HCIP 6198: IT Internship Project, UNC Charlotte, Instructor
2014 – 2015	HCIP 6392: Enterprise Clinical Information Systems, UNC Charlotte, Instructor
2014	HCIP 5375: Computer Vocabulary and Programming Systems, UNC Charlotte, Instructor
2013	ITSC 8110 Introduction to IT Research, UNC Charlotte, Co-Instructor
2013	INFO 8800 Information Systems Research Seminar, UNC Charlotte, Co-Instructor

Supervision and Mentoring:

Post-doctoral researchers:

2018 – present	Chen Wang (research fellow), Department of Health Sciences Research, Mayo Clinic
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2018 – present Maryam Zolnoori (research fellow), Department of Health Sciences Research, Mayo Clinic

2017 – present Ming Huang (research associate), Department of Health Sciences Research, Mayo Clinic

PhD Students:

2015 – 2016 Riya Qiu, Department of Software and Information Systems, University of North Carolina at Charlotte

~~2015 – 2016 Ali Algarni, Department of Software and Information Systems, University of North Carolina at Charlotte~~

2014 – present Boshu Ru, Department of Software and Information Systems, University of North Carolina at Charlotte

~~2014 Chenjun Ling, Department of Software and Information Systems, University of North Carolina at Charlotte~~

Medical Students:

2017 Catherine Gao, 2nd year medical student, Mayo Clinic

2017 James Lee, 2nd year medical student, Mayo Clinic

2017 Megan Heeney, 2nd year medical student, Mayo Clinic

Master Students:

2016 – 2017 Kui Wang, Mayo Clinic

2015 – 2016 Charles Warner-Hillard, University of North Carolina at Charlotte
Now Clinical Data Specialist at Duke University

2015 – 2016 Sri Harsha Degala, University of North Carolina at Charlotte
Winner in Data Challenge at Teradata PARTNERS conference 2016

~~2015 Sri Satya Chanakya, University of North Carolina at Charlotte~~

~~2015 Christine Stephenson, University of North Carolina at Charlotte~~

2015 Ratna Madhuri Maddipatla, University of North Carolina at Charlotte
Now consultant at McKinsey & Company

2014 – 2015 Kimberly Harris, University of North Carolina at Charlotte
Now analyst at UnitedHealth Group

~~2014 – 2015 Gregory Turner, University of North Carolina at Charlotte~~

~~2014 – 2015 Lan Xu, University of North Carolina at Charlotte~~

~~2014 – 2015 Violet Cook, University of North Carolina at Charlotte~~

~~2014 – 2015 Ashu Gulati, University of North Carolina at Charlotte~~

~~2014 – 2015 Depeka Seal, University of North Carolina at Charlotte~~

~~2014 – 2015 Robert D. Shorter, University of North Carolina at Charlotte~~

Undergraduate Students:

~~2015 – 2016 Yuliya Atrasevich, University of North Carolina at Charlotte~~

High school Students:

2003 Chin Siang Ong from Raffles Junior College, Singapore
Gold award winner at Singapore Science and Engineering Fair 2004

Summer Interns:

2018 Yueqi Hu, University of North Carolina at Charlotte

2018	Xiaomeng Yue, University of Cincinnati
2018	Syeda Momina Tabish, The University of Iowa
2017	Omar Eltayeb, University of North Carolina at Charlotte
2017	Thanh Le, Pennsylvania State University
2012	Ying Li, Columbia University <i>Now research staff member at IBM Watson Research Center</i>
2011	Ping Zhang, Temple University <i>Now research staff member at IBM Watson Research Center</i>

Thesis/Dissertation Committee:

2016 – present	Jingyi Shi, PhD candidate, University of North Carolina at Charlotte, Committee Member
2015 – present	Yi Zhen, PhD candidate, University of North Carolina at Charlotte, Committee Member
2014 – present	Boshu Ru, PhD candidate, University of North Carolina at Charlotte, Committee Chair
2014 – 2016	Adam Price, PhD candidate, University of North Carolina at Charlotte, Committee Member