

Chen Liang, PhD

Assistant Professor
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I. EDUCATION

- 2012-2017 Ph.D. in Biomedical Informatics
University of Texas Health Science Center (UTHealth)
Houston, Texas
- 2009-2012 M.S. in Psychology
Soochow University
Suzhou, China
- 2004-2008 B.E. in Information Engineering (with honors)
Soochow University
Suzhou, China

II. ACADEMIC APPOINTMENTS

- 2019-pres. Assistant Professor (tenure track)
Arnold School of Public Health
University of South Carolina
Columbia, South Carolina
- 2017-2019 Assistant Professor (tenure track)
Louisiana Tech University
Ruston, Louisiana
- 2013-2016 Teaching Assistant
School of Biomedical Informatics
University of Texas Health Science Center
Houston, Texas
- 2012-2017 Research Assistant
School of Biomedical Informatics
University of Texas Health Science Center
Houston, Texas

III. HONORS AND AWARDS

- 2016 Merrill & Joe Hafner Fellowship for Potential Leaders in Informatics
UTHealth School of Biomedical Informatics
Houston, Texas

- 2016 Thomas F. Burks Scholarship for Academic Merit
UTHealth
Houston, Texas
- 2016 Telluride Experience Patient Safety Scholar
Georgetown University Hospital & MedStar Health
Washington, DC
- 2015 Dr. Aoki Award
UTHealth School of Biomedical Informatics
Houston, Texas
- 2015 Student Paper Competition Finalist
The 15th World Congress on Medical and Health Informatics
Sao Palou, Brazil
- 2013-2016 Competitive Scholarship
UTHealth School of Biomedical Informatics
Houston, Texas
- 2012 Paul C. Boyle Award for Excellence in Research
UTHealth School of Biomedical Informatics
Houston, Texas

IV. PROFESSIONAL ACTIVITIES

i. Professional Societies

- 2013-pres. American Medical Informatics Association (AMIA)
- 2017-pres. Association for Computing Machinery (ACM)
- 2013-pres. Cognitive Science Society (CogSci)
- 2013-pres. Healthcare Information and Management Systems Society (HIMSS)

ii. Professional Committees

- 2017-pres. Member
Scientific Program Committee
IEEE International Conference on Bioinformatics and Biomedicine
- 2017-2018 Member
Program Committee
Global Health

iii. Editorial Boards

- 2018 Assistant Editor
World Congress on Medical and Health Informatics (MedInfo)
- 2017-pres. Editor
Journal of Public Health Issues and Practices

iv. Ad Hoc Reviewer

Journals

- 2019-pres. Health Informatics Journal
- 2019-pres. JCO Clinical Cancer Informatics
- 2019-pres. International Journal of Medical Informatics (IJMI)

2018-pres.	Journal of Medical Internet Research (JMIR)
2018-pres.	OAP Journal of Medical Informatics and Decision Making
2017-pres.	Computer Methods and Programs in Biomedicine
2017-pres.	Journal of Healthcare Engineering
2016-pres.	BMC Medical Informatics and Decision Making

Conference Proceedings

2019-pres.	International Workshop on Vaccine and Drug Ontology Studies (VDOS)
2019-pres.	IEEE International Conference on Health Informatics (ICHI)
2017-pres.	International Conference on eHealth, Telemedicine, and Social Medicine (eTELEMED)
2017-pres.	IEEE Global Communications Conference: E-Health
2017-pres.	World Congress on Medical and Health Informatics (MedInfo)
2014-pres.	American Medical Informatics Association Joint Summits on Translational Science
2013-pres.	American Medical Informatics Association Annual Symposium

V. RESEARCH

i. Research Interests

- Informatics methodologies, including machine learning, natural language processing, information retrieval, and knowledge extraction.
- Cognitive science, including computational linguistics, knowledge representation, decision making, and artificial intelligence.
- Application of informatics and cognitive science in public health, medicine, clinical research, health services, etc.

ii. Research Projects

Extramural Grants

2019-2020	Co-PI	Providing mental health services to LGBT-identified community members of northeast Louisiana Living Well Foundation Fund requested: \$30,696
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Intramural Grants

2019-2022	PI	Startup fund Arnold School of Public Health, University of South Carolina Total award: \$ 90,000
2017-2018	PI	Distributional semantics to characterize cognitive patterns in HIV/AIDS online community College of Applied and Natural Sciences, Louisiana Tech University Total award: \$1,000

VI. TEACHING

i. Graduate Courses

2020-	HSPM 731 Information Systems in Health Administration University of South Carolina
2017-2018	HIM 502 Database Architecture Louisiana Tech University
2017-2018	HIM 510 Introduction to Health Informatics Louisiana Tech University
2017-2019	HIM 599 Capstone Project Louisiana Tech University
2017-2019	HIM 505 Health Informatics Advanced Statistical Methods Louisiana Tech University
2015-2016	BMI 5360 Clinical Decision Support System UTHealth School of Biomedical Informatics
2014-2015	BMI 5304 Advanced Database Concepts in Biomedical Informatics UTHealth School of Biomedical Informatics
2013-2015	BMI 5007 Algorithms and Data Structures in Biomedical Informatics UTHealth School of Biomedical Informatics

ii. Undergraduate Courses

2018	HIM 129 Technology Applications for Healthcare Louisiana Tech University
2018	HIM 229 Introduction to Health Information Technology Louisiana Tech University
2017-2018	HIM 350 Data Management in Healthcare Louisiana Tech University
2017-2018	HIM 128 Computer Applications for Healthcare Professionals Louisiana Tech University
2017-2018	HIM 333 Introduction to Epidemiology and Applied Statistics in Healthcare Louisiana Tech University

VII. UNIVERSITY SERVICES

i. University Committees

2017-2019	Member Research Committee College of Applied and Natural Sciences, Louisiana Tech University
2017-2018	Member Department Head Search Committee; Faculty Search Committee Louisiana Tech University

VIII. PUBLICATIONS

i. Journal Articles (peer-reviewed)

1. **Liang, C.**, Zhou, S.*, Yao, B.*, Hood, D., & Gong, Y. (in review). Towards Systems-centered Analysis of Medical Incidents: Improving Root Cause Analysis by Optimized Incident Classification. *International Journal of Medical Informatics*. * Contributed equally

2. Amith, M., Manion, F., **Liang, C.**, Harris, M., Wang, D., He, Y., & Tao, C. (2019). Architecture and usability of OntoKeeper, an ontology evaluation tool. *BMC Medical Informatics and Decision Making*, 19(4), 1-18.
3. Hong, YA., **Liang, C.**, Radcliff, T., Wigfall, L., & Street, R. (2019) What do patients say about physicians and hospitals online? A systematic review of studies on patient online reviews. *Journal of Medical Internet Research*.
4. Lin, R.*, Amith, M.*, **Liang, C.**, Duan, R., Chen, Y., & Tao, C. (2018). Visualized Emotion Ontology: a model for representing visual cues of emotions. *BMC medical informatics and decision making*, 18(2), 64. *Contributed equally.
5. **Liang, C.** (2017). Patient Safety Narratives as a Key to Promoting Quality Measurement. *J Health Med Informat*, 8(290), 2.
6. **Liang, C.**, & Gong, Y. (2016). Knowledge Representation in Patient Safety Reporting: An Ontological Approach. *Journal of Data and Information Science*, 1(2), 75-91.

ii. Conference Articles (peer-reviewed, full length)

1. **Liang, C.**, Miao, Q., Kang, H., Vogelsmeier, A., Hilmas, T., Wang, J., & Gong, Y. (in press). Leveraging patient safety research: Fifteen-year effort since "To Err Is Human". In *MedInfo 2019*.
2. **Liang, C.**, Abbott, D., Hong, Y. A., Madadi, M., & White, A. (2019, July). Clustering Help-Seeking Behaviors in LGBT Online Communities: A Prospective Trial. In *International Conference on Human-Computer Interaction* (pp. 345-355). Springer, Cham.
3. Amith, M., Manion, F., **Liang, C.**, Harris, M., Wang, D., He, Y., & Tao, C. (2018, December). OntoKeeper: Semiotic-driven Ontology Evaluation Tool For Biomedical Ontologists. In *2018 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)* (pp. 1614-1617). IEEE.
4. Lin, R., Amith, M. T., **Liang, C.**, & Tao, C. (2017, November). Designing an ontology for emotion-driven visual representations. In *2017 IEEE International Conference on Bioinformatics and Biomedicine (BIBM)* (pp. 1280-1283). IEEE.
5. Yao, B., Kang, H., Miao, Q., Zhou, S., **Liang, C.**, & Gong, Y. (2017). Leveraging Event Reporting Through Knowledge Support: A Knowledge-Based Approach to Promoting Patient Fall Prevention. In *MedInfo* (pp. 973-977).
6. **Liang, C.**, & Gong, Y. (2017). Automated Classification of Multi-Labeled Patient Safety Reports: A Shift from Quantity to Quality Measure. In *MedInfo* (pp. 1070-1074).
7. **Liang, C.**, & Gong, Y. (2017). Predicting Harm Scores from Patient Safety Event Reports. In *MedInfo* (pp. 1075-1079).
8. **Liang, C.***, Shan, Weiyang*, Shan, Weichao, Yang, N., & Gong, Y. (2016). A Cross-Cultural Adaptation in Reporting Perinatal Safety Events. In *International Conference on Cross-Cultural Design* (pp. 695-703). Springer International Publishing. *Contributed equally.
9. Shan, W., Shan, W., Yang, N., Zhang, H., Li, Q., Zhang, R., **Liang, C.**, & Gong, Y. (2016). Reporting Patient Safety Events: A Cross-Cultural Trial. *Nursing Informatics 2016*, 1, 820.
10. **Liang, C.**, & Gong, Y. (2015). Enhancing Patient Safety Event Reporting by K-nearest Neighbor Classifier. *Context Sensitive Health Informatics: Many Places, Many Users, Many Contexts, Many Uses*, 218, 93-99.
11. **Liang, C.**, & Gong, Y. (2015, August). On Building an Ontological Knowledge Base for Managing Patient Safety Events. In *MedInfo* (pp. 202-206).

12. **Liang, C.**, & Gong, Y. (2015, August). Improving Knowledge Management in Patient Safety Reporting: A Semantic Web Ontology Approach. In International Conference on Human Interface and the Management of Information (pp. 118-128). Springer, Cham.
13. **Liang, C.**, Sun, J., & Tao, C. (2016). Semantic Web Ontology and Data Integration: A Case Study in Aiding Psychiatric Drug Repurposing. AMIA Summits on Translational Science Proceedings, 2016, 132.
14. **Liang, C.**, Sun, Y., & Wang, H. (2014). Visualizing Theory of Mind with Multiple Intrinsic Frames of Reference. In Annual Meeting of the Cognitive Science Society.
15. Zhu, Y., **Liang, C.**, Wang, H., & Liu, X. (2012). Modules of Cognitive Control Network: A Computational Modeling Approach. In 18th Annual Meeting of the Organization for Human Brain Mapping.
16. **Liang, C.**, Zhu, Y., & Huang, X. (2011). Impact of Aging on Emotional Prosody Recognition. In International Society for Social Neuroscience Symposium.

iii. Abstracts & Short Papers (peer reviewed)

1. Lin, Y., Hong, S., & **Liang, C.** (2019, July). Semantic Analysis of Online Dentist Review: Toward Assessing Safety and Quality of Dental Care. In International Conference on Human-Computer Interaction (pp. 488-494). Springer, Cham.
2. Amith, M., Lin, R., **Liang, C.**, Gong, Y., & Tao, C. (2018, July). VEO-Engine: Interfacing and Reasoning with an Emotion Ontology for Device Visual Expression. In International Conference on Human-Computer Interaction (pp. 349-355). Springer, Cham.
3. **Liang, C.** & Gong, Y. (2014). Developing a Patient Safety Ontology for Knowledge Management, Data Integration, and Decision Making. In Proceedings of International Conference on Biomedical Ontologies. (pp. 70-72).
4. **Liang, C.**, Zhu, Y., Liu, X. & Wang, H. (2013) Toward a neuro-computational model of cognitive control. In Computational Neuroscience Symposium.