

CURRICULUM VITAE

Ling Tong

University of Texas Health Science Center at Houston ([TIRN Lab](#)) ([Ling's Website](#))
Postdoctoral Researcher, Texas Institute for Restorative Neurotechnologies (TIRN)
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- EDUCATION**
- Ph.D. Biomedical and Health Informatics* 2017 - 2023
[University of Wisconsin Milwaukee](#), Milwaukee, WI
- Biomedical informatics research under the direction of [Jake Luo](#).
 - Dissertation: Understanding Population Gaps and Using Explainable Machine Learning to Predict Risk of Falls for Senior Adults
- B.S. Computer Science* 2013 - 2017
[University of South China](#), Hunan Province, P.R. China
- Study of computer programming and software engineering.
 - Thesis: [Classifying Weibo Tweets for Tracking Influenza](#)

- PUBLICATIONS**
- Journal Articles**
- Zagloul MM, Bock JM, Blumin JH, Friedland DR, Adams JA, **Tong L**, Osinski KI, Khani M, Luo J. Evaluation of Social Determinants of Health on Dysphagia Care Pathways at a Tertiary Care Facility. *The Laryngoscope*. 2023 Sep 8.
 - **Ling T**, Jake L, Adams J, Osinski K, Liu X, Friedland D. Interpretable Machine Learning Text Classification for Clinical Computed Tomography reports—A Case Study of Temporal Bone Fracture. *Computer Methods and Programs in Biomedicine Update*. 2023 Apr 9:100104.
 - **Ling Tong**, Masoud Khani, Bradley Taylor, Kristen Osinski, Jazzmyne Adams, David Friedland, Jake Luo, Socioeconomic Disparities for Healthcare Utilization of Senior Adult Falls in Southeast Wisconsin, 2020-2022. *medRxiv*.
 - Barzekar H, Patel Y, **Tong L**, Yu Z. MultiNet with Transformers: A Model for Cancer Diagnosis Using Images. *arXiv preprint arXiv: 2301.09007*.
 - Thompson-Harvey A, Friedland DR, Adams JA, **Tong L**, Osinski K, Luo J. The Demographics of Meniere's Disease: Selection Bias or Differential Susceptibility?. *Otology and Neurotology*. 2023 Feb 1;44(2):e95-102.
 - **Tong, Ling**, Khani, Masoud, Lu, Qiang and Taylor, Bradley, Osinski, Kristen, Luo, Jake. Association between Body-Mass Index, Patient Characteristics, and Obesity-related Comorbidities among COVID-19 Patients: A Prospective Cohort Study. *Obesity Research and Clinical informatics*.
 - Liu X, Alsghaier H, **Tong L**, Atallah A, Mcroy S. Visualizing Interpretation of a Criteria-Driven System that Automatically Evaluates Quality of Health News: An Exploratory Study of Two Approaches. *JMIR AI*

- **Tong L**, George B, Crotty B, Melek S, Taylor B, Osinski K, Luo J. Telemedicine and Health Disparities: Association between Patient Characteristics and Telemedicine, In-person, Telephone and message-based Care During the COVID-19 Pandemic. *Ipem-translation*. 2022.
- Osafo NK, Friedland DR, Harris MS, Adams J, Davis C, Osinski K, **Tong L**, Luo J. Standardization of Outcome Measures for Intratympanic Steroid Treatment for Idiopathic Sudden Sensorineural Hearing Loss. *Otology and Neurotology*. 2022 Dec 3;43(10):1137-43.
- M, Patel., J, Bock., J, Blumin., D, Friedland., A, Jazzmyne., **Tong, L.**, K, Osinski., J, Luo, Demographic Differences in the Treatment of Unilateral Vocal Fold Paralysis, *Laryngoscope Investigative Otolaryngology*, 2022.
- Harvey, E., Stark, K., Friedland, D. R., Adams, J. A., Harris, M. S., **Tong, L.**, & Luo, J. Impact of Demographics and Clinical Features on Initial Treatment Pathway for Vestibular Schwannoma. *Otology and Neurotology*, 10-1097.
- **Tong, L.**, Luo, J., Adams, J., Osinski, K., Liu, X., & Friedland, D. (2022, June). A Clustering-Aided Approach for Diagnosis Prediction: A Case Study of Elderly Fall. In 2022 IEEE 46th Annual Computers, Software, and Applications Conference (COMPSAC) (pp. 337-342). IEEE.
- Luo, J., **Tong, L.**, Crotty, B. H., Somai, M., Taylor, B., Osinski, K., & George, B. (2021). Telemedicine Adoption during COVID-19 Pandemic: Gaps and Inequalities. *Applied Clinical Informatics*.
- Anisuzzaman, D. M., Barzekar, H., **Tong, L.**, Luo, J., & Yu, Z. (2021). A deep learning study on osteosarcoma detection from histological images. *Biomedical Signal Processing and Control*, 69, 102931
- Thomas, A., Flanary, V., Friedland, D. R., Adams, J. A., **Tong, L.**, Osinski, K., Luo, J. (2021). The impact of social determinants of health and clinical comorbidities on post-tympanotomy tube otorrhea. *International Journal of Pediatric Otorhinolaryngology*, 110986.
- Poetker, D. M., Friedland, D. R., Adams, J. A., **Tong, L.**, Osinski, K., & Luo, J. (2021). Socioeconomic Determinants of Tertiary Rhinology Care Utilization. *OTO open*, 5(2), 2473974X211009830.
- Shane W. White, Jonathan M. Bock, Joel H. Blumin, David R. Friedland, Jazzmyne A. Adams, **Ling Tong**, Kristen Osinski, Jake Luo. (2021). Analysis of socioeconomic factors in laryngology clinic utilization for treatment of dysphonia, *Laryngoscope Investigative Otolaryngology*
- Luo, L., **Tong, L.**, Zhou, X., Mejino Jr, J. L., & Liu, Y. (2017). Evaluating the granularity balance of hierarchical relationships within large biomedical terminologies towards quality improvement. *Journal of Biomedical Informatics*, 75, 129-137
- Xiao Ye, **Ling Tong**, (*in Chinese*) Construction and Application of Chinese-English Bilingual Corpus for Traditional Chinese Medicine Terminologies. *Modern Linguistics*. 2019 Vol. 17, No. 2.

- Xie Jian, Xiaoxi Zhou, **Ling Tong**, Lingyun Luo, (*in Chinese*) Data mining technology of electronic medical records based on Chinese word segmentation, Journal of Hunan University of Science and Technology, 2016.

Conferences

- **Ling Tong**, Masoud Khani, Jake Luo, A Visualization Model for Diagnosing Diabetic Retinopathy Severity and Discovering Plaque Patterns in Retinal Images, Tong, Ling, Khani, Masoud, and Luo, Jake, AI in Aging and Age-related Diseases Conference, 2022.
- **Tong, L.**, Luo, J., Cisler, R., & Cantor, M. (2019, July). Machine learning-based modeling of big clinical trials data for adverse outcome prediction: A case study of death events. In 2019 IEEE 43rd Annual Computer Software and Applications Conference (COMPSAC). IEEE.
- Hernandez, L., **Tong, L.**, Cofino, J., Johannessen, J. O., Guda, N. M., Mudana, V., & Luo, J. (2020). Tu1058 Association Between Attending Endoscopists' experience And Complication Rates For All Endoscopic Procedures: A 10-Year Longitudinal Study. Gastrointestinal Endoscopy
- **Tong, L.**, Hernandez, L. V., & Luo, J. (2020). 41 Predicting Gastrointestinal (Gi) Hemorrhage Using A Machine Learning Approach: Risk Factors And Predictive Analysis In Clinical Studies. Gastroenterology
- **Ling Tong**, Lyndon V. Hernandez, Julia Cofino, Jack O. Johannessen, Nalini M. Guda, Jake Luo, Tu1981 Association Modeling Between Patients' Age And Complication Rate For Endoscopic Procedures, Gastroenterology, 2020.
- **Ling Tong**, Xin Zhao, Lingyun Luo, The relationship between influenza cases and air quality index based on correlation analysis. The 23rd National Medical Informatics Conference of the Chinese Medical Association.

Posters

- Association between Socioeconomic Disparity, Diagnostic Factors and Senior Adult Falls, 2023 AcademyHealth Annual research meeting.
- ACE: An AI-Based, Criteria-Driven, Explainable Approach to Counteract Health Misinformation By Empowering Critical Thinking, 2023 Academy-Health Annual research meeting.
- Telemedicine And Health Disparities: Revealing the Utilization Gaps of In-Person, Telephone, And Message During The COVID-19 Pandemic, AMIA 2023 Clinical Informatics Conference.
- ACE: A Web Tool to Evaluate Health News Quality, AMIA 2023 Clinical Informatics Conference.
- From Phone to Medical Database: An Automatic Document Processing System for Clinical Laboratory Test, Presenting at 2019 Research Poster Competition, University of Wisconsin Milwaukee.
- Machine Learning-based Prediction of Death Events in Clinical Studies Using Big Clinical Trial Data, 2018 Health Research Symposium, University of Wisconsin Milwaukee.

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| RESEARCH EXPERIENCE | <i>Research Fellow</i> | 2023 - Current |
| | The University of Texas Health Science Center at Houston , Houston, TX | |
| | <i>Research Assistant</i> | 2017 - 2023 |
| | University of Wisconsin Milwaukee , BioDLP Lab , Milwaukee, WI | |
| | <i>Research Assistant</i> | 2015 - 2017 |
| | University of South China, PI: Lingyun Luo , Hunan, P.R. China | |
| TEACHING EXPERIENCE | <i>Instructor, UW-Milwaukee</i> | 2019 - 2022 |
| | (U) Computational Tools for Healthcare Professionals | |
| | <i>Teaching Assistant, UW-Milwaukee</i> | 2018 Fall |
| | (U/G) Health Information Technology & Management . Instructor: Min Wu | |
| | <i>Teaching Assistant, UW-Milwaukee</i> | 2018 Spring |
| | (G) Health Big Data Processing Platforms . Instructor: Jake Luo | |
| WORK EXPERIENCE | <i>Data Analysis Engineer</i> | 2020 |
| | Lubar School of Business, UW-Milwaukee. PI: Purush Papatla | |
| | <i>Test Engineer</i> | 2016 |
| | Software Test Center of Hunan Province, China | |
| | <i>Intern: Front End Developer</i> | 2015 |
| | ZTEICT Network Technology Co LTD, China | |
| AWARDS AND FELLOWSHIP | <i>Team member, Clinical & Translational Science Award, by NIH</i> | 2020-22 |
| | <i>Team member, Advancing a Healthier Wisconsin Endowment</i> | 2020-22 |
| | <i>Awardee, UW-Milwaukee Travel Awards</i> | 2019 |
| | <i>Awardee, Chancellor's Graduate Student Awards, UW-Milwaukee</i> | 2019 |
| | <i>Awardee, Chancellor's Graduate Student Awards, UW-Milwaukee</i> | 2018 |
| | <i>Team member, Young Scientists Fund of the National Natural Science Foundation of China</i> | 2016-18 |
| | <i>Undergraduate Student Research and Innovative Project</i> | 2016-17 |
| INVITED PRESENTATIONS | <ul style="list-style-type: none"> • The Disparity of Telemedicine Adoption During the COVID-19 Pandemic, Guest Speaker, College of Medicine, University of Houston, 2023 • Applications in Microsoft Excel, Guest Lecturer, Luddy School of Informatics, Computing, and Engineering, University–Purdue University Indianapolis | |

lis, 2023

- A Clustering-Aided Approach for Diagnosis Prediction: A Case Study of Elderly Fall. 2022 IEEE 46th Annual Computers, Software, and Applications Conferences.
- Predicting the Clinical Outcomes from Clinical Trial Data using Machine Learning, presenting at 2019 Health Research Symposium at University of Wisconsin Milwaukee.
- Machine Learning-based Prediction of Death Events in Clinical Studies Using Big Clinical Trial Data, In 2019 IEEE 43rd Annual Computer Software and Applications Conference.
- From Phone to Medical Database: An Automatic Document Processing System for Clinical Laboratory Test, Presenting at 2019 Research Poster Competition, University of Wisconsin Milwaukee.
- Standardization of Outcome Measures for Intratympanic Steroid Treatment for Idiopathic Sudden Sensorineural Hearing Loss, Combined Otolaryngology Specialties Meeting, Dallas, TX,
- Impact of Demographics and Clinical Features on Initial Treatment Decision Making in Vestibular Schwannoma, 57th Annual Ans Spring Meeting, Dallas, TX,

**PROFESSIONAL
ACTIVITIES**

Scholarly Reviews

2019 - 2023

- Applied Clinical Informatics
- American Medical Informatics Association, 2023 Symposium
- American Medical Informatics Association, 2022 Symposium
- BMC Gastroenterology
- BMC Psychiatry
- Biomedical Signal Processing and Control
- Clinical and Experimental Medicine
- Computers in Biology and Medicine
- Health Informatics Journal
- IEEE Journal of Biomedical and Health Informatics
- Journal of Medical Internet Research (JMIR)
- JMIR Public Health and Surveillance
- JMIR Medical Education
- JMIR Formulative Research

Professional Memberships

2019 - 2023

- American Medical Informatics Association (AMIA)
- American Heart Association, Basic Life Support Provider

- IEEE Computer Society

LANGUAGES

- English: Full Professional Proficiency.
- Chinese: Native Proficiency.