Tong Xia

Phone: (+86)17651796682 (+44)07567857818 **Date of birth**: 16-10-1995
Website: https://xtxiatong.github.io/ **Email**: tx229@cam.ac.uk
Affiliation: Computer Science and Technology Department, University of Cambridge
Research Direction: Machin Learning, mobile health, public Health

Highlights

- H10-index of 27, with 1700+ citations and over 50 publications in medicine journals and AI conference
- Research findings have been featured in international media such as *BBC*, *Guardian, Times*, *Forbes*, and *Financial Times*
- Experience in multidisciplinary and international teams for European Research Council, National Natural Science Foundation of China, and industry-university grants
- Extensive global connections with universities and industry leaders, including Tencent, Huawei, Nokia, and Google
- Rich teaching experience in 5 undergraduate courses and 1 postgraduate course
- Co-supervising 1 PhD, 2 Master's, and 3 undergraduate students for their dissertations

Working Experience

May 2024 – Now *Postdoctoral Research Associate*, ***University of Cambridge***

Sept. 2023 – May 2024 *Research Assistant*, *University of Cambridge*

- Department of Computer Science and Technology
- Funded by ERC Project 833296 (EAR) and EPSRC Project RELOAD
- Leading the *Foundational AI for Mobile Health* project
- Co-supervising PhD and Master students

Education

Oct. 2020 – May 2024 *Ph.D. Computer Science*, ***University of Cambridge***

- Department of Computer Science and Technology & Queens' College
- Mobile Systems group, supervised by Prof. Cecilia Mascolo
- Huawei studentship, CSC Self-financed outstanding awards
- Member of *Women@CL Cambridge* and *Computer Science Society of Queens'*
- Thesis titled by *Reliable and Decentralised Deep Learning for Physiological Data*

Sept. 2017 – July 2020 *M.Eng. Electronics and Communication Engineering*, ***Tsinghua University***

- Department of Electronic Engineering & Tsinghua Shenzhen International Graduate School, Tsinghua University, supervised by Prof. Yong Li & Prof. Qingmin Liao
- Main participant in the National Natural Science Foundation of China (General Program): *Research on Modelling and Predicting Mobile User App Usage Behaviours*, 2019 –2023
- GPA: 3.83/4.0, graduate with honour
- Thesis titled by *Mobile Users Online and Offline Behaviour Modelling*
- Distinguished Master Thesis Award

Sept. 2013 – Jun. 2017 *B.Eng. Electronic Information Engineering*, ***Wuhan University***

- School of Electronic Information, Wuhan, China
- GPA: 3.93/4.0, ranked 1st out of ~400 students
- Outstanding undergraduate

Industry Collaboration and Internship

May. 2022 – Now *Research collaboration*, ***Nokia Bell Labs***, *Cambridge, UK*

- Collaboration project *On-device Uncertainty Quantification for Mobile Health*
- Co-organising workshop *FairComp* in top-tier ubiquitous computing conference

May. 2019 – Feb. 2020 *Research Intern*, ***Tencent Inc.***, *Beijing, China*

- Map Service, Map Big Data Lab, Tencent Inc.
- Tencent-Tsinghua Joint Laboratory, *Trajectory Big Data Mining*, Core Project Team Member
- Rhino-Bird Elite Training Program, rewarded as the *Best Intern*
- Owning two innovative patents in trajectory modelling and transportation planning

Honours and Awards

- 2024 Rising Stars in Women in Engineering at the Asian Dean's Forum
- 2024 Shortlisted for a Research Fellowship at Jesus and St Johns College, University of Cambridge
- 2023 **Chinese Government Award for Outstanding Self-financed Students Abroad** (600 PhDs globally, a prize of 6000 US dollars each PhD)
- 2022 the 2nd poster award at the Precision Health Initiative Launch Symposium
- 2022 Best Postgraduate Poster in Oxbridge Women in Computer Science Conference
- 2022 COVID-19 Sounds project awarded as **Better Future Award in Hall of Fame Awards**, Cambridge
- 2021 ISCA **INTERSPEECH Student Travel Grant**
- 2020 **Huawei Studentship**, Overseas PhD Full Scholarship (over 150K pounds) for 2020-2023
- 2020 **Distinguished Master Thesis Award by the Chinese Institute of Electronics**
- 2020 Outstanding Master's Graduates of Tsinghua University
- 2020 Outstanding Research Intern, Tencent, Beijing
- 2019 National Graduate Student Scholarship of China
- 2017 Outstanding Undergraduate Prize of Wuhan University
- 2016 Intel Cup Embedded System Invitational Contest, National Third Prize
- 2014 National Undergraduate Student Scholarship of China

Highlighted research projects:

- **Listen to health: acoustic AI for public respiratory health screening**
  - Collected the largest respiratory audio dataset [12] (shared with 400 institutes)
  - Designed the first audio-driven COVID-19 predicting model [1, 19] (600+ citations)
  - Proposed the first open-source respiratory foundation model [8]
- **Modelling Electrocardiograms for cardiovascular disease prediction**
  - Contributed confidence-aware models to diagnose arrhythmia from wearable ECGs [2,10]
  - Multi-modal LLMs for ECG interpolation [37]
  - Privacy-preserving ECG model training via federated learning [9, 54]
- **Mobility tracking and intervention for epidemic control**
  - Proposed the first personal mobility data enhancement algorithm [16]
  - Designed personalized mobility intervention strategy to mitigate infection risk [18, 26, 42]
- **Urban environment and public health**
  - Curated the first open dataset for environmental determinants of health [24]
  - Using remote sensing to understand the urban environment that affects health [39, 43]
  - Modelling and predicting of urban dynamics [5, 21]

Publication List

To date, I have published over 50 peer-reviewed papers in top medical journals or AI conferences. My Google Scholar citations exceed 1700, my h-index is 19 and h10-index is 27. A full list of publications can be found on my Google Scholar. Key publications are listed below (*Equal contribution, ^Corresponding author).

First author and corresponding author journal papers:

1. Sounds of COVID-19: Exploring Realistic Performance of Audio-based Digital Testing
   J. Han*, **T. Xia***^, D. Spathis, C. Mascolo, et al.
   Nature NPJ Digital Medicine (IF=15.357), 2022 (Top medicine journal)

2. Class-balanced Evidential Deep Learning for Health Diagnostics
   T. Xia, T. Dang, J. Han, L. Qendro, and C. Mascolo
   *IEEE Journal of Biomedical and Health Informatics, **JBHI** (IF=7.7), 2024 (Top medicine journal)*

3. Uncertainty-aware and History-enhanced Trajectory Recovery via Attentional Network
   T. Xia, Y. Qi, J. Feng, F. Xu, F. Sun, D. Guo, and Y. Li
   *ACM Transactions on Knowledge Discovery from Data, **TKDD** (IF=4.157), 2023*

4. Exploring Machine Learning for Audio-based Respiratory Condition Screening: A Concise Review of Databases, Methods, and Open Issues
   T. Xia, J. Han, L. Qendro, and C. Mascolo
   *Journal of Experimental Biology and Medicine, **JEBM** (IF=4.088), 2022*

5. Understanding Urban Dynamics via State-sharing Hidden Markov Model
   T. Xia, Y. Yue, Y. Li, et al.
   *IEEE Transactions on Knowledge and Data Engineering, **TKDE** (IF=9.235), 2021 (CCF A journal)*

6. 3DGCN: 3-dimensional Dynamic Graph Convolutional Network for Citywide Crowd Flow Prediction
   T. Xia, J. Lin, Y. Li, J. Feng, P. Hui, F. Sun, D. Guo, and D. Jin
   *ACM Transactions on Knowledge Discovery from Data, **TKDD** (IF=4.157), 2021*

7. DeepApp: Predicting Personalized Smartphone App Usage via Context-aware Multi-task Learning
   T. Xia, Y. Li, J. Feng, D. Jin, Q. Zhang, H. Luo, and Q. Liao
   *ACM Transactions on Intelligent Systems and Technology, **TIST** (IF=5.0), 2020*

First author conference papers:

8. Towards Open Respiratory Acoustic Foundation Models: Pretraining and Benchmarking
   Y. Zhang*, **T. Xia*,** J. Han, Y. Wu, et al.
   *Conference on Neural Information Processing Systems, **NeurIPS** Datasets and Benchmarks Track 2024 (CCF A)*

9. FLea: Addressing Data Scarcity and Label Skew in Federated Learning via Privacy-preserving Feature Augmentation
   T. Xia, A. Ghosh, X. Qiu, and C. Mascolo
   *ACM SIGKDD Conference of Knowledge Discovery and Data Mining, **KDD** 2024 (CCF A)*

10. ECG-DPM: Electrocardiogram Generation via a Spectrogram-based Diffusion Probabilistic Model
    L. Li*, **T. Xia***, H. Zhang, D. He, et al.
    *IEEE International Conference on Ubiquitous Intelligence and Computing, **UIC** 2024*

11. Cross-device Federated Learning for Mobile Health Diagnostics: A First Study on COVID-19 Detection
    T. Xia, J. Han, A. Ghosh, and C. Mascolo
    *IEEE International Conference on Acoustics, Speech and Signal Processing, **ICASSP** 2023 (CCF B)*

12. COVID-19 Sounds: A Large-Scale Audio Dataset for Digital Respiratory Screening
    T. Xia*, D. Spathis*, C. Brown, J. Chauhan, A. Grammenos, J. Han, C. Mascolo, et al.

Conference on Neural Information Processing Systems, ***NeurIPS*** *Datasets and Benchmarks Track 2021 (CCF A)*

13. Hybrid-EDL: Improving Evidential Deep Learning for Uncertainty Quantification on Imbalanced Data
    T. Xia, J. Han, L. Qendro, T. Dang, C. Mascolo
    Workshop on Trustworthy and Socially Responsible Machine Learning, ***NeurIPS*** *2022*

14. Benchmarking Uncertainty Quantification on Biosignal Classification Tasks under Dataset Shift
    T. Xia, J. Han, C. Mascolo
    Workshop on Health Intelligence, ***AAAI*** *2022*

15. Evidential Deep Learning for Uncertainty-Aware Mobile Health
    T. Xia, J. Han, L. Qendro, and C. Mascolo
    UK Mobile, Wearable and Ubiquitous Systems Research Symposium, ***MobiUK*** *2022*

16. Attnmove: History Enhanced Trajectory Recovery via Attentional Network
    T. Xia, Y. Qi, J. Feng, F. Xu, F. Sun, D. Guo, and Y. Li
    Annual AAAI Conference on Artificial Intelligence, ***AAAI*** *2021 (CCF A)*

17. Uncertainty-aware COVID-19 Detection from Imbalanced Sound Data
    T. Xia, J. Han, L. Qendro, T. Dang, and C. Mascolo
    Conference of the International Speech Communication Association, ***INTERSPEECH*** *2021 (CCF C)*

18. Mobility-based Individual POI Recommendation to Control the COVID-19 Spread
    A. Ghosh* and **T. Xia***
    IEEE International Conference on Big Data, ***Big Data*** *2021 (CCF C)*

19. Exploring Automatic Diagnosis of COVID-19 from Crowdsourced Respiratory Sound Data
    C. Brown*, J. Chauhan*, A. Grammenos*, J. Han*, A. Hasthanasombat*, D. Spathis*, **T. Xia***, P. Cicuta, and C. Mascolo
    ACM SIGKDD Conference of Knowledge Discovery and Data Mining, ***KDD*** *2020 (CCF A)*

20. Semantic-aware Spatio-temporal App Usage Representation via Graph Convolutional Network
    Y. Yu*, **T. Xia***, H. Wang, J. Feng, Y. Li
    ACM international joint conference on pervasive and ubiquitous computing, ***UbiComp*** *2020 (CCF A)*

21. Revealing Urban Dynamics by Learning Online and Offline Behaviours Together
    T. Xia, Y. Li, J. Feng, D. Jin, Q. Zhang, H. Luo, and Q. Liao
    ACM international joint conference on pervasive and ubiquitous computing, ***UbiComp*** *2019 (CCF A)*

Co-author publications:

22. Reinforcement Learning for Solving Multiple Vehicle Routing Problem with Time Window
    Z. Zong, **T. Xia**, M. Zheng, Y. Li
    ACM Transactions on Intelligent Systems and Technology, ***TIST*** *(IF=5.0), 2024*

23. Smartphone App Usage Analysis: Datasets, Methods, and Applications
    T. Li, **T. Xia**, H. Wang, Z. Tu, S. Tarkoma, Z. Han, and P. Hui
    IEEE Communications Surveys & Tutorials (IF=35.6), 2022 (Top journal)

24. Healthy Cities, A Comprehensive Dataset for Environmental Determinants of Health in England Cities
    Z. Han, **T. Xia**, Y. Xi, and Y. Li
    Scientific Data (IF=9.8), 2023

25. Evaluating Listening Performance for COVID-19 Detection by Clinicians and Machine Learning: Comparative Study
    J. Han, M. Montagna, A. Grammenos, **T. Xia**, E. Bondareva, et al.
    Journal of Medical Internet Research, ***JMIR*** *(IF=7.076), 2023 (Top medicine journal)*

26. Contact tracing and epidemic intervention via deep reinforcement learning

T. Feng, S. Song, **T. Xia**, Y. Li
*ACM Transactions on Knowledge Discovery from Data, **TKDD** (IF=4.157),2023*

27. A Summary of the ComParE COVID-19 Challenges
A. Akman, H. Coppock, C. Bergler, M. Gerczuk, C. Brown, J. Chauhan, A. Grammenos, A. Hasthanasombat, D. Spathis, **T. Xia**, P. Cicuta, J. Han, S. Amiriparian, A. Baird, L. Stappen, S. Ottl, P. Tzirakis, A. Batliner, C. Mascolo, B. W. Schuller
Frontiers in Digital Health, 2023

28. Exploring Longitudinal Cough, Breath, and Voice Data for COVID-19 Disease Progression Prediction via Sequential Deep Learning: Model Development and Validation
T. Dang, J. Han*, **T. Xia***, D. Spathis, and C. Mascolo, et al.
*Journal of Medical Internet Research, **JMIR** (IF=7.076), 2022 (Top medicine journal)*

29. Understanding the long-term dynamics of mobile app usage context via graph embedding
Y. Fan, Z. Tu, T. Li, H. Cao, **T. Xia**, Y Li, X Chen, L Zhang
*IEEE Transactions on Knowledge and Data Engineering, **TKDE** (IF=9.235), 2021 (CCF A journal)*

30. DeepFlowGen: Intention-aware fine grained crowd flow generation via deep neural networks
E. Shao, H. Wang, J. Feng, **T. Xia**, H. Yang, L. Geng, D. Jin, Y. Li
*IEEE Transactions on Knowledge and Data Engineering, **TKDE** (IF=9.235), 2021 (CCF A journal)*

31. Mobile app usage patterns aware smart data pricing
J. Yin, Y. Fan, **T. Xia**, Y. Li, X. Chen, Z. Zhou, X. Chen
*IEEE Journal on Selected Areas in Communications, **JSAC** (IF=16.4) 2020 (Top journal)*

32. DeepMM: Deep learning based map matching with data augmentation
J. Feng, Y. Li, K. Zhao, Z. Xu, **T. Xia**, J. Zhang, D. Jin
*IEEE Transactions on Mobile Computing, **TMC** (IF=7.9) 2020 (Top journal)*

33. To what extent we repeat ourselves? Discovering daily activity patterns across mobile app usage
T. Li, Y. Li, MA Hoque, **T. Xia**, S. Tarkoma, P. Hui
*IEEE Transactions on Mobile Computing, **TMC** (IF=7.9) 2020 (Top journal)*

34. Portfolio Optimization in Traffic Offloading: Concept, Model, and Algorithms
D. Xu, Y. Li, **T. Xia**, J. Li, S. Tarkoma, P. Hui
*IEEE Transactions on Mobile Computing, **TMC** (IF=7.9) 2019 (Top journal)*

35. Finding spatiotemporal patterns of mobile application usage
T. Li, Y. Li, **T. Xia**, P. Hui
*IEEE Transactions on Network Science and Engineering, **TNSE** (IF=6.6), 2021*

36. Predicting socio-economic levels of urban regions via offline and online indicators
Y. Ren, **T. Xia**, Y. Li, X. Chen
PloS one (IF=3.7), 2019

37. Electrocardiogram-Language Model for Few-Shot Question Answering with Meta Learning
J Tang, T Xia, Y Lu, C Mascolo, A Saeed
NeurIPS Workshop on Time Series in the Age of Large Models, 2024

38. Conditional Neural ODE Processes for Individual Disease Progression Forecasting: A Case Study on COVID-19
T. Dang, J. Han*, **T. Xia***, D. Spathis, C. Mascolo, et al.
*ACM SIGKDD Conference of Knowledge Discovery and Data Mining, **KDD** 2023 (CCF A)*

39. Devil in the Landscapes: Inferring Epidemic Exposure Risks from Street View Imagery
Z. Han, Y. Xi, **T. Xia**, Y. Liu, Y. Li
*ACM International Conference on Advances in Geographic Information Systems, **SIGSPATIAL** 2023*

40. FairComp: Workshop on Fairness and Robustness in Machine Learning for Ubiquitous Computing
S Yfantidou, D Spathis, M Constantinides, **T Xia**, N Van Berkel
Adjunct Proceedings of the ACM International Joint Conference on Pervasive and Ubiquitous Computing & the 2023 ACM International Symposium on Wearable Computing, 2023

41. Uncertainty Quantification in Federated Learning for Heterogeneous Health Data
Y Zhang, **T Xia**, A Ghosh, C Mascolo
International Workshop on Federated Learning for Distributed Data Mining, 2023

42. Precise Mobility Intervention for Epidemic Control Using Unobservable Information via Deep Reinforcement Learning
T. Feng, **T. Xia**, H. Wang, X. Fan, and Y. Li
*ACM SIGKDD Conference of Knowledge Discovery and Data Mining, **KDD** 2022 (CCF A)*

43. Reviving the economy while saving lives: a deep reinforcement learning approach for smart POI reopening
T. Feng, H. Wang, X. Fan, **T. Xia**, Y Li
*ACM International Conference on Advances in Geographic Information Systems, **SIGSPATIAL** 2022*

44. Towards Uncertainty-Aware Murmur Detection in Heart Sounds via Tandem Learning
E. Bondareva, **T. Xia**, J. Han, C. Mascolo
*Computing in Cardiology, **CinC** 2022*

45. Quantifying the Causal Effect of Individual Mobility on Health Status in Urban Space
Y. Zhang, F. Xu, **T. Xia**, and Y. Li
*ACM international joint conference on pervasive and ubiquitous computing, **UbiComp** 2021 (CCF A)*

46. One-shot Transfer Learning for Population Mapping
E. Shao, J. Feng, Y. Wang, **T. Xia**, Y. Li
*ACM International Conference on Information & Knowledge Management, **CIKM** 2021 (CCF B)*

47. Exploring automatic COVID-19 diagnosis via voice and symptoms from crowdsourced data
J. Han, C. Brown*, J. Chauhan*, A. Grammenos*, A. Hasthanasombat*, D. Spathis*, **T. Xia***, P. Cicuta, C. Mascolo
*IEEE International Conference on Acoustics, Speech and Signal Processing, **ICASSP** 2021 (CCF B)*

48. The INTERSPEECH 2021 computational paralinguistics challenge: COVID-19 cough, COVID-19 speech, escalation & primates
B.W. Schuller, A. Batliner, C. Bergler, C. Mascolo, J. Han, I. Lefter, H. Kaya, S. Amiriparian, A. Baird, L. Stappen, S. Ottl, M. Gerczuk, P. Tzirakis, C. Brown, J. Chauhan, A. Grammenos, A. Hasthanasombat, D. Spathis, **T. Xia**, P. Cicuta, L. JM Rothkrantz, J. Zwerts, J. Treep, C. Kaandorp
*Conference of the International Speech Communication Association, **INTERSPEECH** 2021 (CCF C)*

49. A Sequential Convolution Network for Population Flow Prediction with Explicitly Correlation Modelling
J. Feng, Z. Lin, **T. Xia**, F. Sun, D. Guo, Y. Li
*International Joint Conferences on Artificial Intelligence, **IJCAI** 2020 (CCF A)*

50. Sume: Semantic-enhanced urban mobility network embedding for user demographic inference
F. Xu, Z. Lin, **T. Xia**, D. Guo, Y. Li
*ACM international joint conference on pervasive and ubiquitous computing, **UbiComp** 2020 (CCF A)*

51. UrbanRhythm: Revealing Daily Urban Dynamics Hidden in Mobility Data
S. Song, **T. Xia**, J. Feng, P. Hui, Y. Li
Workshop on Urban Computing, SIGKDD 2019

52. Detecting Popular Temporal Modes in Population-scale Unlabelled Trajectory Data
F. Xu, **T. Xia**, Y. Li, F. Sun, F. Meng
*ACM international joint conference on pervasive and ubiquitous computing, **UbiComp** 2018 (CCF A)*

53. Detecting Human Interaction Borders in City: The Shanghai Case
T. Xia, F. Xu, J. Yin, X. Chen, Y. Li, Q. Liao
UbiComp/ISWC Adjunct, 2018

PhD Thesis:

54. T. Xia. "Reliable and decentralised deep learning for physiological data." PhD diss., 2024

Patents

1. Y. Li, T. Feng, **T. Xia,** and D. Jing. *An Individual Epidemic Prevention and Control Method and System*. No: CN113658718B. Chinese Patent, 2024
2. Y. Li, **T. Xia**, F. Jie, Lu. Geng, and D. Jing. *A Navigation Method and Navigation System*. No: CN113252054B. Chinese Patent, 2023
3. **T. Xia**, F. Jie, Y. Li, F. Sun and D. Guo. *Road Network Data Processing Method, Device, Equipment, and Storage Medium.* No: CN111275300B. Chinese Patent, 2023
4. Y. Li, **T. Xia**, D. Jing, and F. Sun. *Method for Determining Hidden State Sequences and Method for Determining Functional Types of Blocks.* No: CN111598114B, 2023
5. D. Jing, Y. Li, and **T. Xia**. *A Method and System for Predicting Block Pedestrian Flow Based on Spatiotemporal Graph Convolutional Neural Network*. No: CN111612206B. 2022

Teaching Experience

Guest Lecturer, University of Cambridge:

- *Generative AI and Mobile health* in Mobile Health course for CS students, 2024

Undergraduate Lab Demonstrating, University of Cambridge**:**

- Machine Learning & Real-World Data, Part IA (1st year undergraduate), 2023

Face-to-face Undergraduate Group Supervision, University of Cambridge:

- Artificial Intelligence, Part IB (2nd year undergraduate), 2022, 2023
- Machine Learning & Real-World Data, Part IA (1st year undergraduate), 2021, 2022
- Foundation of Data Science, Part IA (1st year undergraduate), 2021

Online AI Research Skill Training, CCISTC Distance Internship Programs:

- Teaching general computer science research skills including Python programming
- Supervising individual AI research proposal writing, 60 students in total, 2020-2021

Lecture Teaching Assistant, Tsinghua University:

- Big Data and Machine Learning, undergraduate course, 50 students, 2019

Research Mentoring

PhD research, University of Cambridge:

- Co-mentoring *Evelyn Zhang* for her PhD research project: Respiratory sound foundation model for data-efficient respiratory health diagnosis, on-going

MPhil Dissertation, University of Cambridge:

- Co-supervising *Evelyn Zhang* for her MPhil dissertation: *Exploring uncertainty quantification in federated learning for healthcare*, 2022. This student was awarded a commended dissertation award by the department - one of the 4 prizes awarded for dissertations in computer science

Undergraduate (Part II) Dissertation, University of Cambridge:

- Co-supervising *Alex Wang* for his part II dissertation: *A holistic evaluation of the quality of uncertainty from Bayesian model ensemble in federated learning*, 2022

Master Dissertation, Tsinghua University:

- Co-supervising *Tao Feng* for his Master research: *Exploring deep reinforcement learning for mobility-based precise epidemic controlling*, 2019-2022, with paper accepted by KDD 2022

Undergraduate Student Research Training, Tsinghua University:

- Co-supervising *Yue Yu* for a SRT project of *Smartphone app usage representation via graph convolutional network*, 2018-2019. A paper published in ACM UbiComp 2020
- Co-supervising *Junjie Lin* for a SRT project of *Exploring graph convolutional network for citywide crowd flow prediction*, 2019-2020. A paper published in TKDD 2021

Invited Talks and Presentations

- July 2023 Invited talk Sounds of COVID-19 at Launch of Compendium of Open Technology, Cambridge, UK
- April 2023 Invited talk Sounds of COVID-19: Exploring Realistic Performance of Audio-based Digital Testing, Tsinghua University, Beijing
- July 2022 Evidential Deep Learning for Uncertainty-Aware Mobile Health, MobiUK, London
- Sep. 2021 Uncertainty-Aware COVID-19 Detection from Imbalanced Sound Data, INTERSPPECH conference presentation
- Nov. 2021 Uncertainty-aware Machine Learning for Biosignal-based Healthcare Applications, Women@CL Talks, University of Cambridge
- Dec. 2020 Exploring Automatic Diagnosis of COVID-19 from Crowdsourced Respiratory Sound Data, Cambridge University Students' Clinical Research Society - Research During COVID

Academic Services

Seminar Organizer:

- Mobile and Wearable Health Seminar Series, University of Cambridge, 2023-2024

Conference Organizer:

- Poster&Demo Chair of the ACM UbiComp 2022
- Organizer of ACM UbiComp FairComp workshop, 2023

Journal Reviewer:

- Lancet Regional Health-Europe (IF=20.9, Top medicine journal)
- EPJ Data Science (IF=3.63)
- Nature Scientific Data (IF=8.051)
- Nature Scientific Reports (IF=4.996)
- IEEE Transactions on Neural Networks and Learning Systems (IF=14.255, Top AI journal)
- IEEE Transactions on Network and Service Management (IF=4.758)
- IEEE Transactions on Affective Computing (IF=11.2, Top AI journal)
- ACM Transactions on Knowledge Discovery from Data (IF=3.6)

Conference Programme Committee Member:

- AAAI (AAAI Conference on Artificial Intelligence) 2021-2024 *(CCF A)*
- IJCAI (International Joint Conference on Artificial Intelligence) 2021-2024 *(CCF A)*

- KDD (SIGKDD Conference on Knowledge Discovery and Data Mining) 2022-2024 *(CCF A)*
- ICASSP (IEEE International Conference on Acoustics, Speech and Signal Processing) 2022-2024 *(CCF B)*
- CHIL (Conference on Health, Inference, and Learning) 2024

Non-Academic Services

Since 2021, I have been a committee member of the **UK Tsinghua Alumni Association** (UKAT). Since 2022, I have been the leader of the publicity team and managed the official UKTA WeChat public account. In late 2023, I officially became the Vice Secretary-General of UKTA.