XIANG CHEN

Email: xiang.chen@kaust.edu.sa

RESEARCH INTERESTS

Data Science, XAI, AI Ethics, AutoML, AI in medicine

EDUCATION

King Abdullah University of Science and Technology (KAUST)   Jan 2023 – Jun 2026
Ph.D. student in Statistics   *Thuwal, Kingdom of Saudi Arabia*

Geospatial Statistics and Health Surveillance (GeoHealth) research group

Harbin Institute of Technology (HIT)   Sept 2020 – Jun 2022
M.Sc of Engineering in Computer Science and Technology   *Harbin, China*

Massive Data Computing Lab, Supervisor: Prof. Hongzhi Wang (wangzh@hit.edu.cn)

Harbin Institute of Technology (HIT)   Aug 2016 – Jun 2020
B.Eng in Computer Science and Technology   *Harbin, China*

Harbin Institute of Technology (HIT)   Sept 2018 – Jul 2020
B.M (Minor) in Big Data Management and Application   *Harbin, China*

PUBLICATIONS

1. Chunnan Wang, **Xiang Chen**, Junzhe Wang, Hongzhi Wang. ATPFL: Automatic trajectory prediction model design under federated learning framework. Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022: 6563-6572. [paper]

2. **Xiang Chen**, J Xie, Z Wang, B Shen, Z Zhou. How we express ourselves freely: Censorship, self-censorship, and anti-censorship on a Chinese social media. iConference 2023: Information for a Better World: Normality, Virtuality, Physicality, Inclusivity.[paper]

3. **Xiang Chen**, Hongzhi Wang. Data-Driven Prediction of Foodborne Disease Pathogens. In:Data Science. ICPCSEE 2021. Communications in Computer and Information Science, vol 1451. Springer, Singapore.[paper]

4. Xinyue Shao, **Xiang Chen**, Xiao Zhu, Yan Zhang, Hongzhi Wang. CUBE: A Causal Intervention-based Counterfactual Interpretation Method.(submitted to journal *IEEE Transactions on Knowledge and Data Engineering*, now under review)

5. Chunnan Wang, Chen Liang, **Xiang Chen**, Hongzhi Wang. Identifying effective trajectory predictions under the guidance of trajectory anomaly detection model, In: *Pattern Recognition*, Volume 140, 2023, 109559, ISSN 0031-3203 [paper]

6. Chunnan Wang, Junzhe Wang, **Xiang Chen**, Xintong Song, Hongzhi Wang. Efficient CTR Model Selection and Hyperparameter Setting Based on Meta-Learning.(submitted to journal *Transactions on Information Systems*, now under review)

7. Z Han, K Peng, J Mi, **Xiang Chen**. Research on Shrinking City Identification Based on Unsupervised Learning Method–A Case Study of 9 Prefecture-Level Cities in Guangdong-Hong Kong-Macao Greater Bay Area. In:*Journal of Public Administration*,2020,13(02) [paper]

8. Z Shi, Z Zhou, A Choudhry, M Wei, **X Chen**, B Shen. Ethical concerns of COVID-19 contact tracing: a narrative review. 25th International Conference on Human-Computer Interaction,2023 [paper]

PROFESSIONAL EXPERIENCE

Microsoft Research Asia   Dec 2021 - Apr 2022
Intern of DKI(Data, Knowledge, Intelligence) group   *Beijing, China*

· Participated in code development and testing of the auto-ML time series model search package 'ts-lib', which can help users choose a best fit model and corresponding parameters, handle missing data and identity multiple time series

RESEARCH EXPERIENCE

Trajectory prediction based on AutoML and FL   Oct 2020 - Sept 2021
Team member   *Massive Data Computing Lab, HIT*

· Built an effective trajectory prediction(TP) search space by summarizing existing works
· Designed a relation-sequence-aware search strategy
· Found appropriate federated training methods to respectively support the TP model search and final model training under the Federated Learning(FL) framework

Epidemiological Investigation Project of Food-Safety Accident   Dec 2019 – Jun 2020
Team member   *Disease Control and Prevention Center of Heilongjiang Province*

· Established a predictive model for the pathogenic factor of foodborne diseases
· Paved the way for early and effective patient identification and treatment
· Provided a theoretical and practical basis for the completion of data information collection function, prediction and discrimination function, and laboratory test data entry function.

Shrinking City Identification Based on Unsupervised Learning   Nov 2018 – Apr 2019
Team member and technical support   *School of Economics and Management, HIT*

· Established an identification system composed of indicators reflecting the features of shrinking cities
· Used clustering algorithms and factor analysis to classify cities
· Preliminarily explored the reasons for the shrinking cities through qualitative analysis

TEACHING EXPERIENCE

Teaching Assistant, Introduction of Deep Learning, 2023 Fall, KAUST

Teaching Assistant, Design and Analysis of Algorithms, 2020 Fall, HIT

Lecturer, Principles of Computer Composition, 2020, Wang Dao Computer Education

Lecturer, Complex Variable Function and Integral Transformation, [Bilibili], 1.76 million views

Lecturer, Probability Theory and Mathematical Statistics, [Bilibili], 670,000 views

Lecturer, Ordinary Differential Equation, [Bilibili], 78,000 views

Lecturer, Linear Algebra, [Bilibili], 71,000 views

⋆ Bilibili is China's largest video website, the Chinese version of YouTube

EXCHANGE EXPERIENCE

China University of Science and Technology   Jul 2018
Participated in the "Top-notch Student Exchange Meeting in Basic Subjects"   *Hefei, China*

University of Applied Sciences and Arts Northwestern Switzerland   Oct 2019
Participated in the iPOLE project   *Baden, Switzerland*

MAJOR HONORS AND AWARDS

Excellent Graduate of Harbin Institute of Technology, 2022 & 2020 (twice)

Honour Graduate of Honour School of Harbin Institute of Technology, 2020

Top Ten Volunteers for Academic Assistance, 2018 & 2019 (twice)

First-class Academic scholarship for graduate students, 2020 & 2021 (twice)

People's scholarship for undergraduate students, 2016 Fall - 2019 Spring (six times)

Excellence Award of National University Data Innovation Driven Contest, 2019

Third Prize of Mathematical Modeling Competition for College Students in the Three Provinces of Northeast China, 2019

First Prize of Mathematical Modeling for National College Students in Heilongjiang Province, 2018

First prize of the 12th Heilongjiang Province College Student Program Design Competition, 2017

LANGUAGES

Programming Languages: Python, R, MATLAB, C, SPSS

Languages: Mandarin (Native), English (Fluent: IELTS-7.5 (Reading 9.0)), Japanese (Intermediate, N2)