

Zhidan Liu

Assistant Professor
Intelligent Transportation Thrust, System Hub
Hong Kong University of Science and Technology (Guangzhou), China

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EMPLOYMENT

- 2024.08 - Now Assistant Professor, **Hong Kong University of Science and Technology (Guangzhou)**, China
- 2022.07 - 2024.07 Associate Professor (tenured), **Shenzhen University**, China
- 2017.07 - 2022.06 Assistant Professor, **Shenzhen University**, China
- 2015.01 - 2017.06 Research Fellow, **Nanyang Technological University**, Singapore (Advisor: *Prof. Mo Li*)

EDUCATION

- 2009.09 - 2014.09 Ph.D. in Computer Science, **Zhejiang University**, Hangzhou, China, Advisor: *Prof. Dongming Lu*
- 2012.10 - 2013.11 Visiting student, **Nanyang Technological University**, Singapore, Advisor: *Prof. Mo Li*
- 2005.09 - 2009.07 B.E. in Computer Science, **Northeastern University**, Shenyang, China

RESEARCH INTERESTS

Artificial Internet of Things, Urban Computing, Mobile Computing, Data Mining and Analytic

HONORS AND AWARDS

- 2021.04 Outstanding Undergraduate Teacher Award (Shenzhen University)
- 2020.12 Excellent Class Director of Shenzhen University Tencent Mentor Award
- 2020.12 IEEE ICPADS'20 Best Paper Award
- 2018.12 Award of Tencent "Rhinoceros Birds" - Scientific Research Foundation for Young Teachers
- 2018.06 Shenzhen Nanshan District Pilot Talent Award
- 2018.01 Shenzhen Peacock Plan Talent Award

PUBLICATIONS

([†] indicates the students I advised or co-advised, * indicates the corresponding author)

Refereed Journal Publications

1. [TMC] Xiaosi Liu[†], Xiaowen Xu[†], **Zhidan Liu***, Zhenjiang Li, Kaishun Wu. "Spatio-Temporal Diffusion Model for Cellular Traffic Generation", *IEEE Transactions on Mobile Computing*, Vol. xx, Issue xx, Pages xxxx-xxxx, July 2025. (IF: 7.700, **CCF-Rank A**, JCR Q1)
2. [TITS] **Zhidan Liu**, Zhengze Sun[†], Junru Zhang, Bolin Zhang[†], Panrong Tong. "Regional Knowledge Transfer for Urban Traffic Flow Prediction via Satellite Imagery Assisted Contrastive Domain Adaptation", *IEEE Transactions on Intelligent Transportation Systems*, Vol. xx, Issue xx, Pages xxxx-xxxx, July 2025. (IF: 8.400, **CCF-Rank B**, JCR Q1)
3. [TMC] Zixiao Wang[†], Qi Dong, Tianzhang Xing*, **Zhidan Liu***, Zhenjiang Li, Xiaojiang Chen. "Enabling Effective OOD Detection via Plug-and-Play Network for Mobile Visual Applications", *IEEE Transactions on Mobile Computing*, Vol. xx, Issue xx, Pages xxxx-xxxx, July 2025. (IF: 7.700, **CCF-Rank A**, JCR Q1)
4. [TMC] Junru Zhang, Cheng Peng, **Zhidan Liu**, Lang Feng, Yuhao Wu, Yabo Dong, Duanqing Xu. "DI2SDiff++: Activity Style Decomposition and Diffusion-Based Fusion for Cross-Person Generalization in Activity Recognition", *IEEE Transactions on Mobile Computing*, Vol. xx, Issue xx, Pages xxxx-xxxx, May 2025. (IF: 7.700, **CCF-Rank A**, JCR Q1)
5. [TMC] **Zhidan Liu**, Guofeng Ouyang[†], Bolin Zhang[†], Bo Du, Chao Chen, Kaishun Wu. "Joint Order Dispatching and Vehicle Repositioning for Dynamic Ridesharing", *IEEE Transactions on Mobile Computing*, Vol. 24, Issue 4, Pages 2628-2643, April 2025. (IF: 7.700, **CCF-Rank A**, JCR Q1)
6. [TKDE] **Zhidan Liu**, Yingqian Zhou[†], Xiaosi Liu[†], Haodi Zhang, Yabo Dong, Dongming Lu, Kaishun Wu. "Learning Road Network Index Structure for Efficient Map Matching", *IEEE Transactions on Knowledge and Data Engineering*, Vol. 37, Issue 1, Pages 423-437, January 2025. (IF: 8.900, **CCF-Rank A**, JCR Q1)
7. [TBD] Biyao Gong[†], Tianzhang Xing*, **Zhidan Liu***, Wei Xi, Xiaojiang Chen. "Adaptive Client Clustering for Efficient Federated Learning over Non-IID and Imbalanced Data", *IEEE Transactions on Big Data*, Vol. 10, Issue 6, Pages 1051-1065, December 2024. (IF: 3.344, JCR Q1)

8. [TMC] Xianjing Wu[†], **Zhidan Liu**^{*}, Zhenjiang Li, Shengjie Zhao^{*}. “Greta: Towards A General Roadside Unit Deployment Framework”, *IEEE Transactions on Mobile Computing*, Vol. 23, Issue 7, Pages 7602-7617, July 2024. (IF: 7.900, **CCF-Rank A**, JCR Q1)
9. [TMC] Biyao Gong[†], Tianzhang Xing^{*}, **Zhidan Liu**^{*}, Wei Xi, Xiaojiang Chen. “Towards Hierarchical Clustered Federated Learning with Model Stability on Mobile Devices”, *IEEE Transactions on Mobile Computing*, Vol. 23, Issue 6, Pages 7148-7164, June 2024. (IF: 7.900, **CCF-Rank A**, JCR Q1)
10. [TMC] **Zhidan Liu**, Hongquan Zhang[†], Guofeng Ouyang[†], Junyang Chen, Kaishun Wu. “Data-Driven Pick-Up Location Recommendation for Ride-Hailing Services”, *IEEE Transactions on Mobile Computing*, Vol. 23, Issue 2, Pages 1001-1015, February 2024. (IF: 7.900, **CCF-Rank A**, JCR Q1)
11. [TMC] **Zhidan Liu**, Jiancong Liu[†], Xiaowen Xu[†], Kaishun Wu. “DeepGPS: Deep Learning Enhanced GPS Positioning in Urban Canyons”, *IEEE Transactions on Mobile Computing*, Vol. 23, Issue 1, Pages 376-392, January 2024. (IF: 7.900, **CCF-Rank A**, JCR Q1)
12. [TMC] **Zhidan Liu**, Junhong Zheng[†], Jinye Lin[†], Liang Wang, Kaishun Wu. “Radar: Adversarial Driving Style Representation Learning with Data Augmentation”, *IEEE Transactions on Mobile Computing*, Vol. 22, No. 12, Pages 7070-7085, December 2023. (IF: 7.900, **CCF-Rank A**, JCR Q1)
13. [MONE] Biyao Gong[†], Tianzhang Xing^{*}, **Zhidan Liu**^{*}, Junfeng Wang, Xiuya Liu. “Adaptive Clustered Federated Learning for Heterogeneous Data in Edge Computing”, *Mobile Networks and Applications*, DOI: <https://doi.org/10.1007/s11036-022-01978-8>, 2022. (IF: 3.426, JCR Q2)
14. [CJC] **Zhidan Liu**, Weixin Lin[†], Kaishun Wu. “A Spatial Structure Matching Algorithm for Large Spatial-Textual Datasets” (in Chinese), *Chinese Journal of Computers*, Vol. 45, Issue 6, Pages 1261-1275, June 2022.
15. [TIST] Liang Wang, Zhiwen Yu, Bin Guo, Dingqi Yang, Lianbo Ma, **Zhidan Liu**, Fei Xiong. “Data-Driven Targeted Advertising Recommendation System for Outdoor Billboard”, *ACM Transactions on Intelligent Systems and Technology*, Vol. 13, No. 2, Article 29, Pages 1-23, January 2022. (IF: 10.489, JCR Q1)
16. [IOTJ] **Zhidan Liu**, Zengyang Gong[†], Jiangzhou Li[†], Kaishun Wu, “mT-Share: A Mobility-Aware Dynamic Taxi Ridesharing System”, *IEEE Internet of Things Journal*, Vol. 9, Issue 1, Pages 182-198, January 2022. (IF: 10.238, JCR Q1)
17. [TITS] **Zhidan Liu**, Jiangzhou Li[†], Kaishun Wu. “Context-Aware Taxi Dispatching at City-Scale Using Deep Reinforcement Learning”, *IEEE Transactions on Intelligent Transportation Systems*, Vol. 23, Issue 3, Pages 1996-2009, March 2022. (IF: 9.551, **ESI Highly Cited Paper**, CCF Rank-B, JCR Q1)
18. [IOTJ] Shiwei Song, **Zhidan Liu**, Zhenjiang Li, Tianzhang Xing, Dingyi Fang. “Coverage-Oriented Task Assignment for Mobile Crowdsensing”, *IEEE Internet of Things Journal*, Vol. 7, Issue 8, Pages 7407-7418, April 2020. (IF: 9.936, JCR Q1)
19. [IOTJ] **Zhidan Liu**, Zhenjiang Li, Kaishun Wu. “UniTask: A Unified Task Assignment Design for Mobile Crowdsourcing based Urban Sensing”, *IEEE Internet of Things Journal*, Vol.6 Issue 4, Pages 6629-6641, August 2019. (IF: 9.936, JCR Q1)
20. [TMC] **Zhidan Liu**, Pengfei Zhou, Zhenjiang Li, Mo Li. “Think Like A Graph: Real-Time Traffic Estimation at City-Scale”, *IEEE Transactions on Mobile Computing*, Vol. 18, Issue 10, Pages 2446-2459, October 2019. (IF: 5.112, **CCF-Rank A**, JCR Q1)
21. [IEEENet] **Zhidan Liu**, Zhenjiang Li, Kaishun Wu, Mo Li. “Urban Traffic Prediction from Mobility Data Using Deep Learning”, *IEEE Network Magazine*, Vol. 32, Issue 4, Pages 40-46, August 2018. (IF: 8.808, JCR Q1)
22. [TITS] **Zhidan Liu**, Shiqi Jiang, Pengfei Zhou, and Mo Li. “A Participatory Urban Traffic Monitoring System: The Power of Bus Riders”, *IEEE Transactions on Intelligent Transportation Systems*, Vol. 18, Issue 10, Pages 2851-2864, October 2017. (IF: 4.051, CCF Rank-B, JCR Q1)
23. [TON] **Zhidan Liu**, Zhenjiang Li, Mo Li, Wei Xing, and Dongming Lu. “Path Reconstruction in Dynamic Wireless Sensor Networks Using Compressive Sensing”, *IEEE/ACM Transactions on Networking*, Vol. 24, Issue 4, Pages 1948-1960, August 2016. (IF: 3.376, **CCF-Rank A**, JCR Q1)
24. [TITS] **Zhidan Liu**, Zhenjiang Li, Mo Li, Wei Xing, and Dongming Lu. “Mining Road Network Correlation for Traffic Estimation via Compressive Sensing”, *IEEE Transactions on Intelligent Transportation Systems*, Vol. 17, Issue 7, Pages 1880-1893, July 2016. (IF: 3.724, CCF Rank-B, JCR Q1)

25. [IJDSN] Bo Zeng, Yabo Dong, **Zhidan Liu**. “A Negotiation-Based TDMA Scheduling with Consecutive Slots Assignment for Wireless Sensor Networks”, *International Journal of Distributed Sensor Networks*, 2014. (IF: 1.239, JCR Q4)
26. [IJDSN] **Zhidan Liu**, Wei Xing, Yongchao Wang, Dongming Lu. “Hierarchical Spatial Clustering in Multihop Wireless Sensor Networks”, *International Journal of Distributed Sensor Networks*, 2013. (IF: 1.239, JCR Q4)

Refereed Conference Publications

1. [ICDM'24] **Zhidan Liu**, Jinye Lin[†], Zhiyu Xia[†], Chao Chen, Kaishun Wu. “Towards Efficient Ridesharing via Order-Vehicle Pre-Matching Using Attention Mechanism”, In *IEEE ICDM*, Abu Dhabi, UAE, December 2024. (CCF-Rank B)
2. [KDD'24] Junru Zhang, Lang Feng, **Zhidan Liu**, Yuhan Wu, Yang He, Yabo Dong, Duanqing Xu. “Diverse Intra- and Inter-Domain Activity Style Fusion for Cross-Person Generalization in Activity Recognition”, In *ACM KDD*, Barcelona, Spain, August 2024. (CCF-Rank A)
3. [ICPADS'23] Meiquan Lai[†], Yaqi Huang[†], **Zhidan Liu***, Kaishun Wu. “An Optimized Lossless Graph Summarization for Large-Scale Graphs”, In *IEEE ICPADS*, Ocean Flower Island, Hainan, China, December 2023. (CCF Rank-C)
4. [MM'23] Mengzhu Wang, Junyang Chen, Huan Wang, Huisi Wu, **Zhidan Liu**, Qin Zhang. “Interpolation Normalization for Contrast Domain Generalization”, In *ACM MM*, Ottawa, Canada, October 2023. (CCF-Rank A)
5. [ICPADS'22] Jianlong Xu, Zhiyu Xia[†], Yuhui Li, Yuxiang Zeng, **Zhidan Liu**. “Subgraph Sampling for Inductive Sparse Cloud Services QoS Prediction”, In *IEEE ICPADS*, Nanjing, China, January 2023. (CCF Rank-C)
6. [DASFAA'21] **Zhidan Liu**, Junhong Zheng[†], Zengyang Gong[†], Haodi Zhang, Kaishun Wu. “Exploiting Multi-Source Data for Adversarial Driving Style Representation Learning”, In *DASFAA*, Taipei, Taiwan, April 2021. (CCF Rank-B)
7. [HPCC'20] Baofu Huang[†], **Zhidan Liu***, Kaishun Wu. “Structure Preserved Graph Reordering for Fast Graph Processing Without the Pain”, In *IEEE HPCC*, Fiji, December 2020. (Acceptance Rate: 58/379 = 15%, CCF Rank-C)
8. [ICPADS'20] Baofu Huang[†], **Zhidan Liu***, Kaishun Wu. “Accelerating PageRank in Shared-Memory for Efficient Social Network Graph Analytics”, In *IEEE ICPADS*, HongKong, China, December 2020. (Best Paper Award, CCF Rank-C)
9. [ICCCN'20] Zengyang Gong[†], Bo Du, **Zhidan Liu**, Wei Zeng, Pascal Perez, Kaishun Wu. “SD-seq2seq: A Deep Learning Model for Bus Bunching Prediction Based on Smart Card Data”, In *IEEE ICCCN*, Honolulu, Hawaii, USA, August 2020. (CCF Rank-C)
10. [ICDE'20] **Zhidan Liu**, Zengyang Gong[†], Jiangzhou Li[†], Kaishun Wu. “Mobility-Aware Dynamic Taxi Ridesharing”, In *IEEE ICDE*, Dallas, Texas, USA, April 2020. (CCF-Rank A, CSRanking Conference)
11. [MSN'19] **Zhidan Liu**, Mingliang Huang[†], Zhi Ye[†], Kaishun Wu. “DeepRTP: A Deep Spatio-Temporal Residual Network for Regional Traffic Prediction”, In *IEEE MSN*, Hong Kong, China, December 2019. (Invited paper, CCF Rank-C)
12. [MobiSys'19] Yang Liu, Zhenjiang Li, **Zhidan Liu**, Kaishun Wu. “Real-time Arm Skeleton Tracking and Gesture Inference Tolerant to Missing Wearable Sensors”, In *ACM MobiSys*, Seoul, Republic of Korea, June 2019. (Acceptance Rate: 40/174 = 22%, CCF Rank-B, CSRanking Conference)
13. [IPSN'18] Chu Cao, **Zhidan Liu**, Mo Li, Qin Zheng, Wenqiang Wang. “Walkway Discovery from Large Scale Crowdsensing”, In *ACM/IEEE IPSN*, Porto, Portugal, April 2018. (Acceptance Rate: 22/82 = 26%, CCF Rank-B)
14. [MobiHoc'14] **Zhidan Liu**, Zhenjiang Li, Mo Li, Wei Xing, Dongming Lu. “Path Reconstruction in Dynamic Wireless Sensor Networks using Compressive Sensing”, In *ACM MobiHoc*, Philadelphia, USA, August 2014. (Acceptance Rate: 40/211 = 18%, CCF Rank-B)
15. [ICCC'13] **Zhidan Liu**, Wei Xing, Yongchao Wang, Dongming Lu. “Hierarchical Spatial Clustering in Multi-hop Wireless Sensor Networks”, In *IEEE ICC*, Xi'an, China, August 2013.
16. [AINA'13] **Zhidan Liu**, Wei Xing, Bo Zeng, Yongchao Wang, Dongming Lu. “Distributed Spatial Correlation-based Clustering for Approximate Data Collection in WSNs”, In *IEEE AINA*, Barcelona, Spain, March 2013.

17. [ICACT'13] **Zhidan Liu**, Wei Xing, Yongchao Wang, Dongming Lu. "An Energy-Efficient Data Collection Scheme for Wireless Sensor Networks", In *IEEE ICACT*, PyeongChang, Korea, January 2013.
18. [CyberC'12] Bo Zeng, Yabo Dong, **Zhidan Liu**, Dongming Lu. "A Workload-Aware Link Scheduling for Heterogeneous Wireless Sensor Networks", In *IEEE CyberC*, Sanya, China, October 2012.
19. [WiCom'12] **Zhidan Liu**, Wei Xing, Yongchao Wang, Dongming Lu. "Adaptive Data Storage for Querying in Wireless Sensor Networks", In *IEEE WiCom*, Shanghai, China, September 2012.

Books, Poster, and Demo

1. [Book'21] **Zhidan Liu**, Kaishun Wu. "Mobility Data-Driven Urban Traffic Monitoring", *Springer*, Singapore, May, 2021.
2. [MobiSys'19] Yang Liu, Chengdong Lin, Zhenjiang Li, **Zhidan Liu**, Kaishun Wu. "Poster: When Wearable Sensing Meets Arm Tracking", In *ACM MobiSys*, Seoul, Republic of Korea, June 2019.
3. [IPSN'18] Chu Cao, **Zhidan Liu**, Mo Li, Qin Zheng, Wenqiang Wang. "Demo Abstract: Walkway Discovery from Large Scale Crowdsensing", In *ACM/IEEE IPSN*, Porto, Portugal, April 2018.

Patents

1. **Zhidan Liu**, Weixin Lin, Kaishun Wu. *A Spatial Structure Matching Method for Large Spatial-Textual Datasets* (ZL202111190044.1), 2024.12.31, Chinese invention patent
2. **Zhidan Liu**, Jiancong Liu, Kaishun Wu. *A Deep Learning-Based GPS Enhancement Positioning Method and System for Urban Canyons* (ZL202210425764.X), 2024.10.29, Chinese invention patent
3. **Zhidan Liu**, Baofu Huang, Kaishun Wu. *A Lightweight and Efficient Method for Vertex Reordering in Graphs* (ZL202011134445.0), 2023.12.12, Chinese invention patent
4. **Zhidan Liu**, Baofu Huang, Mingliang Huang, Kaishun Wu. *Parallel Computing Acceleration Method for PageRank on Social Network Graph Data* (ZL201910999376.0), 2023.10.13, Chinese invention patent
5. **Zhidan Liu**, Junhong Zheng, Kaishun Wu. *A Method for Learning Driving Style Representation based on Multi-context Data* (ZL202011431508.9), 2023.01.13, Chinese invention patent
6. **Zhidan Liu**, Kaishun Wu. *A Unified Mobile Crowdsourcing Task Allocation Method for Urban Sensing* (ZL201910121165.7), 2022.09.20, Chinese invention patent
7. **Zhidan Liu**, Zenyang Gong, Jiangzhou Li, Kaishun Wu. *A Mobility-Aware Dynamic Ridesharing System* (ZL201910515242.7), 2022.09.20, Chinese invention patent
8. **Zhidan Liu**, Pengfei Zhou, Zhenjaing Li, Mo Li, Kaishun Wu. *A Traffic Estimation Method for Urban Road Networks* (ZL201811140012.9), 2021.09.24, Chinese invention patent
9. **Zhidan Liu**, Jiangzhou Li, Kaishun Wu. *A Deep Reinforcement Learning based Taxi Dispatching Method* (ZL202010521882.1), 2021.07.13, Chinese invention patent

SELECTED PROJECTS/GRANTS

- [PI] Research on the Key Technologies of Mobility Context Aware Personalized Ridesharing, **National Natural Science Foundation of China (General Program)**, No.62172284, 2022.01 - 2025.12, 752K CNY. (Ongoing)
- [PI] Research on the Key Technologies of Shared Memory based Social Network Graph Computing, **National Natural Science Foundation of Guangdong (General Program)**, No.2022A1515010155, 2022.01 - 2024.12, 100K CNY. (Completed)
- [PI] Joint Research of Crowdsensing and Data Analytic for Smart City, **National Natural Science Foundation of Guangdong (General Program)**, No.2020A1515011502, 2019.10 - 2022.09, 100K CNY. (Completed)
- [PI] Research on Exploiting Big Mobility Trajectory Data for Smart Sensing of Urban Traffic, **National Natural Science Foundation of China (Young Scientists Fund)**, No.61802261, 2019.01 - 2021.12, 300K CNY. (Completed)
- [PI] Research on Crowdsensing based Urban Sensing Framework, **Natural Science Foundation of Shenzhen University Grant**, No.2018061, 2018.01 - 2022.12, 200K CNY. (Completed)

- [PI] **Research on Big Mobility Trajectory Data based Intelligent Transport Systems**, Startup Fund for Shenzhen Overseas High-Caliber Personnel, No.827/000344, 2018.01 - 2021.12, 2700K CNY. (Completed)
- [PI] **Research on Exploiting Big Trajectory Data for Intelligent Transport Sensing and Computing**, Tencent “Rhinoceros Birds” - Scientific Research Foundation for Young Teachers of Shenzhen University, No.201802, 2019.01 - 2020.12, 50K CNY. (Completed)
- [Co-I] **Multi-dimensional and Deep Perception Information based Social Computing**, **Joint Funds of National Natural Science Foundation of China (Key Program)**, No.U2001207, 2021.01 - 2024.12, 2550K CNY. (Completed)

ACADEMIC COMMUNITY SERVICE

Membership:

- **IEEE Senior Member** (since 2024)
- **CCF Senior Member** (since 2023)
- Member of ACM (since 2018)
- Member of ACM SIGMOBILE (since 2021)
- Executive member of CCF Ubiquitous Computing Technical Committee (since 2022)
- Executive member of CCF Internet of Things Technical Committee (since 2023)
- Executive member of CCF Intelligent Transportation Division (since 2023)
- Executive member of ACM SIGSpatial China (since 2023)

Editorial Board:

- Young Editorial Board Member of **Journal of Social Computing**, 2024.02 - Now
- Lead Guest Editor: *Special Issue on Ubiquitous Sensing and Computing for Intelligent Transportation* in **Data Science for Transportation**

Conference Organization Chair:

- Special session Chair: IEEE CSCWD 2022
- Local Chair: EAI ICECI 2021
- Conference Finance Chair: IEEE ICPADS 2017
- Conference Finance Chair: IEEE ICPADS 2018

Technical Program Committee Member:

- 2025: ACM CSCW (**Associate Chair**), ACM KDD (**Outstanding Reviewer** for August Cycle)
- 2024: ACM KDD, IEEE ICDE (demo track), IEEE MSN
- 2023: ACM CIKM, IEEE ICPADS
- 2022: ACM KDD, ACM WSDM, IEEE ICPADS
- 2021: IEEE ICDCS, IEEE MASS
- 2020: IEEE ICDCS, IEEE HiPC
- 2019: IEEE MASS, IEEE MSN
- 2018: IEEE ICPADS, IEEE ICCCN
- 2017: IEEE ICPADS

Transaction and Journal Reviewer (selected):

- IEEE Transactions on Knowledge and Data Engineering (TKDE)
- IEEE Transactions on Mobile Computing (TMC)
- IEEE Transactions on Intelligent Transportation Systems (TITS)
- IEEE/ACM Transactions on Networking (TON)
- ACM Transactions on Spatial Algorithms and Systems (TSAS)
- IEEE Transactions on Wireless Communications (TWC)
- IEEE Transactions on Parallel and Distributed Systems (TPDS)
- ACM Transactions on Sensor Networks (TOSN)
- IEEE Transactions on Communications (TOC)
- IEEE Internet of Things Journal (JIOT)
- IEEE Communications Magazine
- IEEE Computational Intelligence Magazine
- Elsevier Pervasive and Mobile Computing (PMC)
- Ad Hoc & Sensor Wireless Networks (AHSWN)
- Elsevier Computer Networks

INVITED TALKS

- “*AI-Driven Dynamic Ridesharing*”, UGOD 2025 Summer AI Symposium, HKUST (GZ), Guangzhou, China, July 2025
- “*The New Era of Artificial Intelligence: Opportunities and Challenges*”, Guangzhou Foreign Language School, Guangzhou, February 2025
- “*Data-Driven Pick-Up Location Recommendation for Ride-Hailing Services*”, CCF HHME 2024, Taiyuan, China, August 2024
- “*Deep Learning Enhanced GPS Positioning in Urban Canyons*”, Embedded AI Summit 2024, Dunhuang, China, August 2024
- “*Trajectory Data Driven Smart Mobility: Sensing, Computing, and Applications*”, HKUST (GZ), Guangzhou, China, September 2023
- “*Trajectory Data Driven Smart Transportation Research: Sensing and Computing*”, Zhejiang University, Hangzhou, China, April 2023
- “*Trajectory Data Driven Smart Transportation Research: Sensing and Computing*”, online, CCF HHME 2022, September 2022

TEACHING

Teaching Courses (at HKUST (Guangzhou)):

- (PG) Mobile Sensing and Computing for Transportation (**INTR6000N**) Spring 2025

Teaching Courses (at Shenzhen University):

- (UG) Intelligent Networking and Computing Spring 2023
- (UG) Introduction to Wireless Sensor Networks Spring 2017-2022
- (UG) Internet Programming (in JAVA) Fall 2017-2023
- (PG) Guidance on Academic Writing Fall 2021-2023

Teaching Achievements:

- 2023.09 I was awarded “Outstanding Advisor of Guangdong Collegiate Computing Competition (2023)”
- 2023.09 Guiding the undergraduate students (Haotian Zhong and Jiahao Liu) to win “Second Prize of Guangdong Collegiate Computing Competition”
- 2023.06 My supervised master student Hongquan Zhang was awarded “Excellent Graduate of Shenzhen University”
- 2023.06 My supervised undergraduate students Bolin Zhang and Xiaowen Xu were awarded “Excellent Undergraduate of Shenzhen University”
- 2022.09 Guiding undergraduate students (Wenxuan Xia, Zikai Du, and Yujun Ji) to win “Second Prize of Guangdong Collegiate Computing Competition”
- 2022.06 My supervised undergraduate Jiancong Liu was awarded “Excellent Undergraduate of Shenzhen University”
- 2022.06 My supervised undergraduate Jiancong Liu was awarded “100 Outstanding Undergraduate Thesis (Design) of Shenzhen University”
- 2021.12 I was awarded “Rising-Star Graduate Advisor”
- 2021.09 I was awarded “Outstanding Advisor of Guangdong Collegiate Computing Competition”
- 2021.08 Guiding undergraduate students (Bolin Zhang, Weixin Xu, and Yuanchu Zheng) to win “National Second Prize of The 14th Chinese Collegiate Computing Competition”
- 2021.05 I was awarded “Second Prize in CSSE of The 10th Lecture Competition for Young Teachers of Shenzhen University”
- 2021.04 I was awarded with “Outstanding Undergraduate Teaching Award for the 2019-2020 Academic Year”
- 2020.12 I was awarded “Outstanding Advisor of The 13th Chinese Collegiate Computing Competition”
- 2020.12 I was awarded “Excellent Class Director of Shenzhen University Tencent Mentor Award”
- 2020.08 Guiding undergraduate students (Linhua Chen, Yuliang Li, and Jiancong Liu) to win “National First Prize of The 13th Chinese Collegiate Computing Competition” (203 out of 30,000)
- 2020.06 My supervised master student Zengyang Gong was awarded “Excellent Graduate of Shenzhen University”
- 2019.06 I was awarded “Second Prize in CSSE of The 9th Lecture Competition for Young Teachers of Shenzhen University”
- 2019.04 Guiding undergraduate students (Zhubang Huang, Jincheng Zhong, and Hulin Yang) to win “Honorable Mention of 2019 Mathematical Contest In Modeling”

Ph.D. Students @ Hong Kong University of Science and Technology (Guangzhou):

- **Xiaowen Xu** (2024.09 -)
B.E. of Computer Science and Technology, Shenzhen University, Shenzhen, China, 2023 ([“Excellent Undergraduate of Shenzhen University”](#))
- **Jiyu Wang** (2025.02 -)
M.E. of Transportation Engineering, Sun Yat-sen University (Shenzhen campus), Shenzhen, China, 2024

Research Assistant @ Hong Kong University of Science and Technology (Guangzhou):

- **Zhenyu Yang** (2025.07 -)
M.E. of Computer Science and Technology, Shenzhen University, Shenzhen, China, 2025
- **Jinsong Luo** (2025.07 -)
B.E. of Artificial Intelligence, Central South University, Changsha, China, 2025
- **Zitong Yu** (2025.07 -)
B.E. of Information Management and System, China University of Geosciences (Wuhan), Wuhan, China, 2025

Master Students @ Shenzhen University:

- **Bolin Zhang** (Master student, 2023.09 -)
B.E. of Software Engineering, Shenzhen University, Shenzhen, China, 2023 ([“Excellent Undergraduate of Shenzhen University”](#))
- **Chang Liu** (Master student, 2023.09 -)
B.E. of Internet of Things Engineering, Jinan University, Guangzhou, China, 2023
- **Yuhao Ouyang** (Master student, 2023.09 -)
B.E. of Data Science and Big Data Technology, Beijing Forestry University, Beijing, China, 2023

Alumni of Shenzhen University:

1. **Zengyang Gong** (Master 2017.09 - 2020.06)
 - Awards: [“Excellent Graduate of Shenzhen University”](#)
 - Publications: IEEE ICDE’20, IEEE ICCCN’20, IEEE IOTJ’22
 - Employment: Ph.D candidate in The Hong Kong university of Science and Technology (HKUST)
 - B.S. of Computer Science and Technology, Wuhan University of Science and Technology, Wuhan, China, 2017
2. **Mingliang Huang** (Master 2017.09 - 2020.06)
 - Publications: IEEE MSN’19
 - Employment: Sangfor Technologies
 - B.S. of Computer Science and Technology, Lanzhou University, Lanzhou, China, 2017
3. **Jiangzhou Li** (Master 2018.09 - 2021.06)
 - Publications: IEEE TITS’22
 - Employment: Sangfor Technologies
 - B.S. of Software Engineering, Qingdao University, Qingdao, China, 2018
4. **Baofu Huang** (Master 2018.09 - 2021.06)
 - Awards: [“Best Paper Award” of IEEE ICPADS’20](#)
 - Publications: IEEE HPCC’20, IEEE ICPADS’20
 - Employment: Tencent
 - B.E. of Computer Science, Guangdong University of Finances and Economics, Guangzhou, China, 2018
5. **Weixin Lin** (Master 2019.09 - 2022.06)
 - Publications: CJC’22
 - Employment: JinTeng Technologies
 - B.E. of Computer Science and Technology, Shenzhen University, Shenzhen, China, 2019
6. **Junhong Zheng** (Master 2019.09 - 2022.06)
 - Publications: DASFAA’21, IEEE TMC’23
 - Employment: Tencent
 - B.S. of Software Engineering, Zhuhai College of Science and Technology, Zhuhai, China, 2019

7. **Jiancong Liu** (B.S. 2018.09 - 2022.06)
 - Awards: “Excellent Undergraduate of Shenzhen University”
 - Publications: IEEE TMC’24
 - Employment: Master student in Harbin Institute of Technology (Shenzhen)
 - B.E. of Computer Science and Technology, Shenzhen University, Shenzhen, China, 2022
8. **Hongquan Zhang** (Master 2020.09 - 2023.06)
 - Awards: “Excellent Graduate of Shenzhen University”
 - Publications: IEEE TMC’24
 - Employment: HUAWEI
 - B.E. of Internet of Things Engineering, Hunan Agricultural University, Changsha, China, 2020
9. **Meiquan Lai** (Master 2020.09 - 2023.06)
 - Publications: IEEE ICPADS’24
 - Employment: SICS
 - B.S. of Mathematics, Shenzhen University, Shenzhen, China, 2020
10. **Yingqian Zhou** (Master 2020.09 - 2023.06)
 - Publications: IEEE TKDE’25
 - Employment: BOCOM
 - B.E. of Computer Science and Technology, Guangdong University of Technology, Guangzhou, China, 2020
11. **Jiayue Ruan** (Master 2020.09 - 2023.06)
 - Employment: BYD company
 - B.E. of Computer Science and Technology, North China University of Technology, Beijing, China, 2020
12. **Wenxuan Xia** (B.S. 2020.09 - 2023.06)
 - Awards: “Excellent Undergraduate of Shenzhen University”
 - Employment: Ph.D. student at HKUST (GZ))
 - B.S. of Software Engineering, Shenzhen University, Shenzhen, China, 2023
13. **Yaqi Huang** (Master 2021.09 - 2024.06)
 - Publications: under submission
 - Employment: Tencent Music
 - B.E. of Internet of Things Engineering, Hunan Agricultural University, Changsha, China, 2021
14. **Guofeng Ouyang** (Master 2021.09 - 2024.06)
 - Publications: IEEE TMC’25
 - Employment: FUTU
 - B.E. of Electronical Information Science and Technology, Zhaoqing University, Zhaoqing, China, 2021
15. **Jinye Lin** (Master 2021.09 - 2024.06)
 - Publications: IEEE ICDM’24
 - Employment: FUTU
 - B.E. of Internet of Things Engineering, Shenzhen University, Shenzhen, China, 2021
16. **Xiaosi Liu** (Master 2022.09 - 2025.06)
 - Publications: IEEE TMC’25, IEEE TKDE’25
 - Employment: BYD company
 - B.E. of Software Engineering, Nanchang University, Nanchang, China, 2022
17. **Zhiyu Xia** (Master 2022.09 - 2025.06)
 - Employment: HSBC Group
 - B.E. of Computer Science and Technology, Shantou University, Shantou, China, 2022
18. **Zhengze Sun** (Master 2022.09 - 2025.06)
 - Publications: IEEE TITS’25
 - Employment: HUAWEI
 - B.E. of Data Science and Big Data Technology, Wuhan University of Technology, Wuhan, China, 2022
19. **Zhenyu Yang** (Master 2022.09 - 2025.06)
 - Publications: IEEE TMC’25 (under review)
 - Employment: RA @ HKUST(GZ)
 - B.E. of Computer Science and Technology, Henan University, Kaifeng, China, 2022

20. **Haotian Zhong** (B.E 2022.06 - 2025.06)

- Awards: “[Excellent Undergraduate of Shenzhen University](#)”
- Employment: Ph.D. student at Zhejiang University
- B.S. of Software Engineering, Shenzhen University, Shenzhen, China, 2025

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