

Kang Yang

Curriculum Vitae

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EDUCATION

- PhD Student University of California, Merced, CA, USA, *Jan 2020 - Dec 2024 (expected)*.
Research Focus: AI for Wireless Networking and Sensing.
Advisor: [Wan Du](#) in Department of Computer Science and Engineering.
- Master of Engineering Xi'an Jiaotong University, Xi'an, China, *Sept 2016 - Jun 2019*.
Research Focus: Reinforcement Learning Applications and Big Data Analytics.
- Bachelor of Engineering Xi'an University of Science and Technology, Xi'an, China, *Sept 2012 - Jun 2016*.

AWARD

- 2024 UC Merced Professional Development Award
- 2024 - 2025 Farms Food Future Innovation Initiative (F3) R&D GSR Award
- 2023 - 2024 Farms Food Future Innovation Initiative (F3) R&D GSR Award
- 2022 UC Merced GSA Conference Travel Award
- The Best Paper Runner-up Award, IEEE DCOSS-IoT 2021, as the first author

PUBLICATION

Note: * marks co-primary authors.

Conference

- [C5] Kang Yang, Yuning Chen, and Wan Du. OrchLoc: In-Orchard Localization via a Single LoRa Gateway and Generative Diffusion Model-based Fingerprinting. In the 22nd ACM International Conference on Mobile Systems, Applications, and Services (**MobiSys**), 2024.
- [C4] Kang Yang*, Yuning Chen*, Xuanren Chen, and Wan Du. Link Quality Modeling for LoRa Networks in Orchards. In the 22nd ACM/IEEE Conference on Information Processing in Sensor Networks (**IPSN**), 2023.
- [C3] Kang Yang and Wan Du. LLDPC: A Low-Density Parity-Check Coding Scheme for LoRa Networks. In the 20th ACM Conference on Embedded Networked Sensor Systems (**SenSys**), 2022.
- [C2] Kang Yang, Xi Zhao, Jianhua Zou, and Wan Du. ATPP: A Mobile App Prediction System Based on Deep Marked Temporal Point Processes. In the 17th IEEE International Conference On Distributed Computing in Sensor Systems and the Internet of Things (**DCOSS-IoT**), 2021. **Best Paper Runner-Up Award**.
- [C1] Zhihao Shen*, Kang Yang*, Wan Du, Xi Zhao, and Jianhua Zou. DeepAPP: A Deep Reinforcement Learning Framework for Mobile Application Usage Prediction. In the 17th ACM Conference on Embedded Networked Sensor Systems (**SenSys**), 2019.

Journal

- [J7] Kang Yang, Miaomiao, Liu, and Wan Du. RALoRa: Rateless-Enabled Link Adaptation for LoRa Networking. **IEEE/ACM Transactions on Networking**, pp. 1-16, 2024.
- [J6] Zhihao Shen, Kang Yang, Xi Zhao, Jianhua Zou, and Wan Du. Fast Map Matching for Cellular Data. **IEEE**

Transactions on Knowledge and Data Engineering, pp. 1-18, 2024.

[J5] Kang Yang, Xi Zhao, Jianhua Zou, and Wan Du. ATPP: A Mobile App Prediction System Based on Deep Marked Temporal Point Processes. **ACM Transactions on Sensor Networks**, vol. 19, no. 3, pp. 1–24, 2023.

[J4] Miaomiao Liu, Kang Yang, Yanjie Fu, Dapeng Oliver Wu, and Wan Du. Driving Maneuver Anomaly Detection based on Deep Auto-Encoder and Geographical Partitioning. **ACM Transactions on Sensor Networks**, vol. 19, no. 2, pp. 1–22, 2023.

[J3] Zhihao Shen*, Kang Yang*, Wan Du, Xi Zhao, and Jianhua Zou. DeepAPP: A Deep Reinforcement Learning Framework for Mobile Application Usage Prediction. **IEEE Transactions on Mobile Computing**, vol. 22, no. 2, pp. 824-840, 2021.

[J2] Kang Yang and Wan Du. A Low-Density Parity-Check Coding Scheme for LoRa Networks. Under Submission in ACM Transactions on Sensor Networks (minor revision).

[J1] Kang Yang, Yuning Chen, and Wan Du. FLog: Link Quality Modeling for LoRa Networking in Orchards. Under Submission in ACM Transactions on Sensor Networks.

GRANT/PROPOSAL

Title: Reliable and Energy-Efficient LoRa Networks for Smart Irrigation and Groundwater Recharging in Orchards
DURATION: August 15, 2023 - August 14, 2024

FUNDING: Funded by the Farms Food Future Innovation Initiative (F3) R&D GSR Program through the US Department of Commerce, Economic Development Administration Build Back Better Regional Challenge

Title: (Renewal) Reliable and Energy-Efficient LoRa Networks for Smart Irrigation and Groundwater Recharging in Orchards

DURATION: August 15, 2024 - August 14, 2025

FUNDING: Funded by the Farms Food Future Innovation Initiative (F3) R&D GSR Program through the US Department of Commerce, Economic Development Administration Build Back Better Regional Challenge

BOOK CHAPTER

Publishing House of Mobile Big Data Analytics for Social Computing. Print ISBN: 9787121401695. Chapters Electronics Industry 7 and 10.

RESEARCH EXPERIENCE

Research Assistant University of California, Merced, CA, USA. Jan 2022 - May 2023.

Research Focus: Artificial Intelligence of Things (AIoT).

Research Assistant Xi'an Jiaotong University, Xi'an, China. Jun 2019 - Dec 2019.

Research Focus: Mobile Computing.

TEACHING EXPERIENCE

Spring 2021 Course: CSE 005 Introduction to Computer Applications.

Role: Teaching Assistant.

Fall 2020, 2021 Course: CSE 150 Operating Systems.

Role: Teaching Assistant.

Spring 2020 Course: CSE 021 Introduction to Computing II.

Role: Teaching Assistant.

PROFESSIONAL SERVICE

- Conference Reviewer IEEE ICC 2024.
ACM SenSys 2022 Shadow Program Committee.
IEEE GLOBECOM 2021.
- Journal Reviewer ACM Transactions on Sensor Networks.
IEEE Transactions on Wireless Communications.
ACM Transactions on Internet of Things.
Journal of Systems Science and Systems Engineering.
- External Reviewer USENIX ATC 2024, ACM SenSys 2023, IEEE INFOCOM 2020 2021 2023, ACM BuildSys 2023, IEEE ICDCS 2020 2022, ACM UbiComp 2020, IEEE/ACM Transactions on Networking, IEEE Transactions on Mobile Computing.

PRESENTATION

- Improving the Energy Efficiency and Reliability of LoRa Networks Using Coding Techniques
EECS Seminar talk at University of California, Merced, March 2024
- LLDPC: A Low-Density Parity-Check Coding Scheme for LoRa Networks
Conference talk at SenSys, Boston, November 2022
- ATPP: A Mobile App Prediction System Based on Deep Marked Temporal Point Processes
Conference talk at DCOSS-IoT, Virtual, June 2021

TECHNICAL SKILL

- Language Python, Java, C/C++, MATLAB.
- Framework Pytorch, Tensorflow, CUDA, Apache Spark, Apache Hadoop.
- Other Tools Vim, Linux Shell.

REFERENCE

- Ph.D. Advisor Wan Du [↗](#), Assistant Professor, University of California, Merced.
wdu3@ucmerced.edu.