YUAN XIE

🌐 http://yuanxie.me/

📍 3 Research Link, #04-06, 117602, Singapore

✉ yuan_xie@nus.edu.sg; yxie.9705@gmail.com

BIO

I am Xie Yuan, a Postdoctoral Research Fellow at the School of Computing, National University of Singapore. I completed my Ph.D. in Computer Science at Hunan University (HNU) in 2024 under the supervision of Prof. Keqin Li and Prof. Kenli Li. During my doctoral studies, I spent two years as a visiting Ph.D. student at NUS, advised by Prof. Roger Zimmermann.

My research focuses on trajectory classification, spatial crowdsourcing, and time series anomaly detection. My work has been published in top-tier conferences and journals, including NeurIPS, ICDE, MM, and TKDE.

EDUCATION

Hunan University (HNU), Hunan, China   09/2019 - 06/2024
Ph.D. – Computer Science   Advisor: Prof. Keqin Li and Prof. Kenli Li

National University of Singapore (NUS), Singapore   11/2021 - 11/2023
Visiting Ph.D. – Computer Science   Advisor: Prof. Roger Zimmermann

Hunan Agriculture University, Hunan, China   09/2015 - 06/2019
Bachelor of Science – Information and Computing Sciences

EMPLOYMENT

Research Fellow, National University of Singapore (NUS), Singapore   01/2025 - present
Advisor: Prof. Roger Zimmermann

Research Assistant, National University of Singapore (NUS), Singapore   12/2023 - 12/2024

RESEARCH INTEREST

Trajectory Classification

  ▷ Multi-modality Fusion; Mobility Pattern; Adversarial Robustness; Domain Adaptation

Spatial Crowdsourcing

  ▷ Task Assignment; Coalition Formation; Optimization

Time Series Anomaly Detection

  ▷ Irregular Behavior Detection; Reconstructed-based Data Generation; Spatio-temporal GNN

PUBLICATIONS *Corresponding author

[ICDE 2025] PBSM: Predictive Bi-preference Stable Matching in Spatial Crowdsourcing
Yuan Xie, Yumeng Liu, Xu Zhou, Yifang Yin, Kenli Li, Roger Zimmermann
DOI: 10.1109/ICDE65448.2025.00063, pp. 765-778.

[NeurIPS Spotlight 2025] Self-Perturbed Anomaly-Aware Dynamics for Multivariate Time-Series Anomaly Detection
Jinyu Cai, *Yuan Xie**, Glynnis Lim, Yifang Yin, Roger Zimmermann, See-Kiong Ng

[MM 2024] A Local Context-aware Snapshot and Sequential Dual Fusion Transformer for Trajectory Classification
Yuan Xie, Yichen Zhang, Yifang Yin, Sheng Zhang, Ying Zhang, Rajiv Shah, Roger Zimmermann
DOI: 10.1145/3664647.3681340, pp. 8053-8061

[TKDE 2024] Trajectory-Aware Task Coalition Assignment in Spatial Crowdsourcing
Yuan Xie, Fan Wu, Xu Zhou, Wensheng Luo, Yifang Yin, Roger Zimmermann, Keqin Li, Kenli Li
DOI: 10.1109/TKDE.2023.3336642, vol. 36, pp. 7201-7216

[ICDE 2024] Trajectory-Aware Task Coalition Assignment in Spatial Crowdsourcing (Extended Abstract)
Yuan Xie, Fan Wu, Xu Zhou, Wensheng Luo, Yifang Yin, Roger Zimmermann, Keqin Li, Kenli Li
DOI: 10.1109/ICDE60146.2024.00504, pp. 5745-5746

[Information Sciences 2023] Satisfaction-aware Task Assignment in Spatial Crowdsourcing
Yuan Xie, Yongheng Wang, Kenli Li, Xu Zhou, Zhao Liu, and Keqin Li
DOI: https://doi.org/10.1016/ j.ins.2022.11.081, vol. 622, pp. 512–535

UNDER REVIEW

Yuan Xie, Yichen Zhang, Yifang Yin, Ying Zhang, Wensheng Luo, Roger Zimmermann, "TrajMDA: Multi-Modality Domain Adaptation for Trajectory Classification with Dual-Head Learning", AAAI, 2026, Under Review.

Yichen Zhang, **Yuan Xie***, Yifang Yin, Yuxuan Liang, Roger Zimmermann, "Multi-view Domain Generalization for Transportation Mode Classification", AAAI, 2026, Under Review.

HONORS AND AWARDS

Doctoral Scholarship, Hunan University	2019-2024
CSC Scholarship, China Scholarship Council	2021-2023

PROFESSIONAL SERVICES

Conference Reviewer: AAAI 2026, ICDE 2025
Journal Reviewer: IoT 2025, IEEE TCSS 2025, IEEE TCCN 2025, IoT 2024, MMSym 2024

MENTORSHIP

Mentored Students

- **Jaycent Gunawan Ongris** - Undergraduate, University Indonesia, Research Intern   2025
- **Shiting Liang** - Master Student, Hunan University   2021

SKILLS

Familiar Programming Languages
Python, C++, LaTeX

Languages
Mandarin (native), English (professional working proficiency), Japanese (N2).