Jiaqi Shao

LLM Agents | MAS | Federated Learning | Distributed Edge AI

 GitHub   LinkedIn   Email   Google Scholar

Education

Hong Kong University of Science and Technology

Doctor of Philosophy (PhD) in Electronic and Computer Engineering   2023 Fall – Present

- Supervisor: Prof. Wei Zhang (HKUST) (Mentor: Prof. Bing Luo (DKU))

The Chinese University of Hong Kong, Shenzhen

Bachelor of Engineering in Electrical and Computer Engineer   2019 – 2023

- Stream: Computer Engineering

Publications

1. **Shao, J.**, Lin, T., Luo, B., "Beyond Right to be Forgotten: Managing Heterogeneity Side Effects Through Strategic Incentives", *ACM MobiHoc*, 2025.

2. Fan, T., ..., **Shao, J.**, et al., "Ten challenging problems in federated foundation models", *IEEE Transactions on Knowledge and Data Engineering*, 2025.

3. Lu, S., **Shao, J.***, Luo, B., and Lin, T., "Morphagent: Empowering agents through self-evolving profiles and decentralized collaboration", *ICML-MAS*, 2025. (*Co-first authors.)

4. **Shao, J.**, Yuan, T., Lin, T., Cao, X., and Luo, B., "Cognitive Insights and Stable Coalition Matching for Fostering Multi-Agent Cooperation," *arXiv preprint arXiv:2405.18044*, 2024.

5. **Shao, J.**, Lin, T., and Luo, B., "Federated Unlearning: a Perspective of Stability and Fairness", *arXiv preprint arXiv:2402.01276*, 2024.

6. He, S., Tang, B., Zhang, B., **Shao, J.**, Ouyang, X., Nugraha, DN., Luo, B., "FedKit: Enabling Cross-Platform Federated Learning for Android and iOS", *IEEE INFOCOM 2024-IEEE Conference on Computer Communications Workshops*, 2024.

7. Geng, J., Tang, B., Zhang, B., **Shao, J.**, Luo, B., "FedCampus: A Real-world Privacy-preserving Mobile Application for Smart Campus via Federated Learning & Analytics", *Proceedings of the Twenty-Fifth International Symposium on Theory*, 2024.

Projects

FedKit: Enabling Cross-Platform Federated Learning for Android and iOS

- We present FEDKIT, which pipelines Cross-Platform FL for Android and iOS development by enabling model conversion, hardware-accelerated training, and cross-platform model aggregation.
- Our workflow supports flexible federated learning operations (FLOps) in production, facilitating continuous model delivery and training.
- This is a collaborative project with Prof. Luo, DKU undergraduate students Sichang He (lead), Beilong Tang, and Boyan Zhang, as well as collaborators Xiaomin Ouyang (UCLA) and Daniel Nata (Flower).
- Our work has been ACCEPTED at IEEE INFOCOM 2024 Demo.

FedCampus: Privacy-preserving Mobile Application for Smart Campus

- Designed and implemented a real-world mobile application that leverages federated learning to provide smart campus services while preserving user privacy.

- Integrated privacy-preserving analytics to enable data-driven campus improvements without compromising individual user data.
- Collaborated with a team to deploy and test the application in a real campus environment.

Teaching

Teaching Assistant

- COMP3511: Operating Systems, Fall 2023
- ELEC4010: Machine Learning, Spring 2023
- Vector Space Methods with Applications | ECE 586K, DKU, Spring 2025