Haoming Wang

334 N Craig, Pittsburgh, PA, USA | hw.wang@pitt.edu | 4129097571

Research Interests

On-device AI, Spatial Intelligence, Explainable AI

Education

Ph.D. in Electrical and Computer Engineering, University of Pittsburgh — Sept 2022 – May 2027 (Anticipated)

Advisor: Prof. Wei Gao

B.Eng. in Automation, Zhejiang University — Sept 2018 – May 2022
with Honors from Chu Kochen Honors College
GPA: 3.8/4

Experience

Graduate Student Researcher / Research Assistant , Intelligent System Lab, Dept. of Electrical & Computer Engineering, University of Pittsburgh, — Sept 2022 – Present

- Developed a method that uses gradient inversion to mitigate the impact of device delays correlated with data heterogeneity in Federated AIoT systems
- Proposed a technique that enables efficient on-device personalization of LLMs by selecting appropriately fine-tuned models based on explainability of their prior personalization

Teaching Assistant, Department of Electrical and Computer Engineering ,University of Pittsburgh, — Sept 2024 – Apr 2025

- ECE 1175 - Embedded System Design (Fall 2024)
- ECE 1195 - Advanced Digital Design (Spring 2025)

Research Assistant, Department of Control Science and Technology, Zhejiang University — Sept 2020 – Jun 2022

- Signal design and processing for near-ultrosonic acoustic senesing systems on smartphones

Publications

[AAAI'25] Tackling Intertwined Data and Device Heterogeneities in Federated Learning with Unlimited Staleness — 2025

Haoming Wang, Wei Gao

in Proceedings of the 39th Annual Conference on Artificial Intelligence, 2025. (Acceptance Ratio: 23.4%)

[MobiCom'25] When Device Delays Meet Data Heterogeneity in Federated AIoT Applications — 2025

Haoming Wang, Wei Gao

iin Proceedings of the 31st ACM International Conference on Mobile Computing and Networking. (Acceptance Ratio: 17.1%)

[MobiSys'25] Never Start from Scratch: Expediting On-Device LLM Personalization via Explainable Model Selection — 2025

Haoming Wang, Boyuan Yang, Xiangyu yin, Wei Gao

In Proceedings of the 23rd Annual International Conference on Mobile Systems, Applications and Services