Mingyuan Zhang

Boston, MA Homepage zhang.mingyua@northeastern.edu 781 219 1785 Google Scholar

Education

Northeastern University *Sep. 2023 – Present*
Ph.D. in Computer Engineering, advised by Prof. Yun Raymond Fu

- **Research Area:** Foundation Models, Efficient Fine-tuning, Sparse Network, Multi-view Learning

Northeastern University *Sep. 2021 – Dec. 2022*
M.S. in Electrical/Computer Engineering

- **Concentration:** Computer Vision, Machine Learning and Algorithm

Xidian University *Sep. 2017 – Jun. 2021*
B.S. in Communication Engineering

Skills

Languages: Strong reading, writing and speaking competencies for English, Mandarin Chinese.

Coding: Python, MATLAB, C, Xcode.

Web Dev: HTML, CSS.

Misc.: Academic research, LaTeX typesetting and publishing.

Experience

Research Assistant *Boston, MA*
Northeastern University *Sep. 2023 - Present*

Research Intern *Remote*
Socure *Jun. 2025 – Aug. 2025*

- Developed a computational framework for barcode reconstruction aimed at mitigating the effects of occlusion, blur, and partial data loss, thereby enhancing decoding robustness and accuracy.

Applied Scientist Intern *Remote*
AinnovationLabs *Dec. 2022 – Dec. 2024*

- Fine-tuned a spatio-temporal 3D human pose estimation model with our collected dataset to track human poses of a single person.
- Designed a multi-scale CNN model for sleep signal processing that identifies sleep stages and detects sleep disorders from complex acoustic signals.
- Built a pedestrian re-identification (ReID) system capable of accurately detecting the same individual across varying environments.
- Developed a mobile app for recording sleep patterns and consulting sleep-related questions, helping researchers collect data on patient groups for sleep studies.

Research Assistant *Nanjing, China*
Southeast University *Jun. 2019 - Aug. 2019*

- Designed a prediction model to predict atmospheric environmental changes, incorporating multi-modal environmental data to enhance accuracy.

Publications

Conference

Accepted

[1] Yizhou Wang, Lingzhi Zhang, Yue Bai, Mang Tik Chiu, Zhengmian Hu, ***Mingyuan Zhang***, Qihua Dong, Yu Yin, Sohrab Amirghodsi and Yun Fu, "Cautious Next Token Prediction", (LLMs optimization), *ACL 2025*.

Under Review

[1] ***Mingyuan Zhang***, Yue Bai, Huan Wang, Yizhou Wang, Qihua Dong, Yitian Zhang, and Yun Fu, "", (LLMs post-training), *ICLR 2025*.

[2] ***Mingyuan Zhang***, Yue Bai, Yi Xu, Chang Liu, and Yun Fu, "", (view generation for human pose estimation), *ICRA 2026*.

Ongoing Work

[1] ***Mingyuan Zhang***, Yue Bai, Yiyang Huang and Yun Fu, "", (efficient LLMs/VLMs fine-tuning).

[2] Yue Bai*, ***Mingyuan Zhang****, Jiasen Lu, Zichen Zhang, Yun Fu, "", (LLMs/VLMs model soup).

[3] Yi Xu, Ruining Yang, Yitian Zhang, Yizhou Wang, Jianglin Lu, ***Mingyuan Zhang***, Lili Su, and Yun Fu, "", (survey of trajectory prediction w/ foundation models).

Journal

Under Review

[1] Yue Bai*, ***Mingyuan Zhang****, Huan Wang, Zhiqiang Tao, Kunpeng Li, and Yun Fu, "", (network pruning), *TPAMI*.

[2] Yue Bai*, ***Mingyuan Zhang****, Handong Zhao, and Yun Fu, "", (adapter-tuning for multi-modal foundation models), *TPAMI*.

Patent

Under Review

[1] Yun Fu, ***Mingyuan Zhang***, Zhi Xu, "", (sleep monitoring).