

Weibo Wang

wwbwang99@gmail.com | +86 13940219285 | 1999.3.8 | Shanghai, China

Research Interests: Model Acceleration, Image Restoration, Brain-inspired Computing



Education

Master of Engineering in Computer Technology

Sept 2021 – July 2024

Shenzhen Institutes of Advanced Technology, Chinese Academy of Sciences

[Interdisciplinary Center for Brain Information](#), The Brain Cognition and Brain Disease Institute

Advisor: [Pengcheng Zhou](#)

Thesis: “A self-supervised framework for enhancing axial resolution of volumetric imaging data”

Bachelor of Engineering in Computer Science and Technology

Sept 2016 – July 2020

NorthEastern University

School of Computer Science and Engineering

Advisor: [Yue Kou](#)

Positions

Artificial Intelligence Engineer

Aug 2024 - Present

Huawei, 2012 Labs, Central Media Technology Institute

Research focus: Multimodal Model Distillation and Inference Acceleration

Research Experience

Artificial Intelligence Engineer, Huawei 2012 Labs

June 2025 – Present

- Worked on step distillation for text-to-image models incorporating ControlNet with specialized conditions for text rendering, accelerating the process by six times without compromising visual-text rendering effect. This work has been deployed on the relevant platforms.
- Distilled the knowledge from a larger XXB-parameter teacher diffusion model into a smaller XXB-parameter student diffusion model, achieving performance at XXth percentile of the original student model's capability.

Computational Neuroscience Laboratory, Shenzhen Institutes of Advanced Technology

Sept 2021 – July 2024

Advisor: Pengcheng Zhou

- Developed a self-supervised framework with multiple loss constraints to enhance the axial resolution in 3D fluorescence microscopy by $5\times$ without manual priors, boosting segmentation recall from 69% to 85%. This work has been presented as a [Poster](#) at CCCN 2024.

Publications

- **Wang, W.**, Liu, Y., Zhao, R., Zhang, Y., Yang, C., Xu, F., & Zhou, P. (2025). RESIN: A self-supervised framework for enhancing axial resolution of volumetric imaging data. (in preparation)
- Zhang, Y., Song, T., Yang, C., Shen, Y., Yang, Y., Hu, X., Zhao, R., **Wang, W.**, Wang, X., Liu, H., Yan, H., Jia, C., Liu, Y., Wu, X., Huang, H., Hu, X., Zhou, J.-N., Tan, L., Lau, P.-M., Wang, H., Poo, M.-M., Zhou, P., Bi, G.-Q., Xiao, Y., Liu, C. & Xu, F., 2025. Whole-brain reconstruction of fiber tracts based on the cytoarchitectonic organization. *Nature Methods*.
- A Method for Image Restoration Recovering Axial Undersampling in 3D Images. (Invention Patent, Application No.: CN202410465605.1)
- A Method and System for Denoising Calcium Fluorescence Images. (Invention Patent, Application No.: CN202410456365.9)

Engineering Experience and Projects

Artificial Intelligence Deployment Engineer, Huawei 2012 Labs

Aug 2024 – May 2025

- Led the design and implementation of core components and testing framework for an AI-driven wallpaper animation module. This work has been integrated into HarmonyOS 6.0 successfully.
- Optimized the AI-driven wallpaper animation algorithm, achieving a 30% increase in processing speed.
- Language Used: C++

Skills

English: CET-6

Programming: C++, Python(with Pytorch), Matlab

Technologies: Linux, Docker, Git, Latex