# YUHANG CHEN

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#### Education

#### Wuhan University

Bachelor of Engineering in Computer Science GPA: 3.74/4.0, Average Score: 88.82/100 Research Area: Federated Learning, Trustworthy Artificial Intelligence

### Publications

#### † Equal contribution

[1] Yuhang Chen<sup>†</sup>, Wenke Huang<sup>†</sup>, Mang Ye. "Fair Federated Learning under Domain Skew with Local Consistency and Domain Diversity", accepted to CVPR 2024.

[2] Yuhang Chen, Wenke Huang, Mang Ye. "Towards Generalization Fairness in Federated Learning", in submission.

#### Experiences

#### MARS Group, Wuhan University Research Assistant

- Topics: Federated Learning, Fairness in Machine Learning
- Specialized in federated learning and performance fairness within the domain. Developed two innovative frameworks aimed at enhancing model performance and fairness in distributed environments. One framework published in CVPR, and another currently under review.

#### FiberHome Telecommunication Technologies Co., Ltd. Visiting Student

- Learned basic techniques of network communication facilities and network programming.
- Conducted basic operation and maintenance of network servers.

#### Projects

#### Chatbot Design Based on LLaMA-33B

- Fine-tuned the LLaMA-33B model using an Chinese corpus to enhance its fluency in Chinese conversational contexts.
- Implemented QLoRA technology (NF4 Quantization, LoRA, Paged Optimizer) to reduce GPU Video Memory usage, facilitating fine-tuning on a single NVIDIA 3090 GPU.
- Developed a user-friendly interaction interface using vue.js for UI design.
- Built back-end logic and databases with Django, ensuring stable and efficient request handling.

#### **RISC-V** Five-stage Pipeline CPU Design

- Self-designed single-cycle and five-stage pipeline CPU in RISC-V framework.
- Assembly programming and debugging on Venus platform for testing the hazard detection and interrupts.
- Programming simple games with assembly instructions and display via VGA on FPGA development boards.

#### Awards & Honors

Excellent Student, Wuhan University	Sep. 2023
Third Class Scholarship, Wuhan University	Sep. 2023
National Third Prize, China Collegiate Computing Contest - Group Programming Ladder Tournament	Mar. 2023
Bronze Medal, Hubei Province Collegiate Programming Contest	Mar. 2022

#### Skills

Languages: Chinese (native), English (fluent, IELTS 6.5), Wu Dialect (native, Cangnan, Wenzhou). Technical Skills: Proficient in Python, C++, C, LATFX, PyTorch; familiar with Java, HTML/CSS, JavaScript. **Development Tools:** Proficient in Linux, Windows, Git, VS Code, PyCharm.

Wuhan, China

Sep. 2021 – Jun. 2025

## Jul. 2022

Jun. 2023

#### Mar. 2023

Jun. 2023 - Present