Feiyang Wu

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ZJU-UIUC institute, Zhejiang University, Haining City, Zhejiang Province, China

EDUCATION

Zhejiang University - University of Illinois Urbana-Champaign Institute, Haining, China Sep 2021 – Jun 2025

BS in Computer Engineering from University of Illinois Urbana-Champaign expected June 2025
BEng Electronics and Computer Engineering from Zhejiang University expected June 2025

- **GPA:** 3.96/4.0 (ZJU); 3.98/4.0 (UIUC)
- **Areas of Research Interests:** Linux Operating System and x86 Programming, Machine Learning and Computer Vision, Embedded Systems, Robotics, GPU

HONORS

- Second Prize, RoboMaster University League Shanghai 2023
- National Scholarship of China 2022 & 2023
- First Prize Scholarship of Zhejiang University 2022 & 2023
- Second Prize Scholarship of ZJU-UIUC Institute 2022 & 2023
- 'Internet+' Innovation and Entrepreneurship Competition National Gold Prize 2022
- Dean's List of Grainger Engineering, UIUC Fall 2023 & Spring 2024

PUBLICATION

MovieChat: From Dense Token to Sparse Memory for Long Video Understanding CVPR 2024

Song, E., Chai, W., Wang, G., Zhang, Y., Zhou, H., Wu, F., Chi, H., Guo, X., Ye, T., Zhang, Y., Lu, Y., Hwang, J.-N., & Wang, G. (2023, December 2). *MovieChat: From Dense Token to Sparse Memory for Long Video Understanding.* ArXiv.org. https://doi.org/10.48550/arXiv.2307.16449

RESEARCH EXPERIENCE

***Participant*, Robotics Arm Control from Physcial Intelligence Lab, ZJU-UIUC institute** Sep 2024 – Present

- Joined the recently established Physical Intelligence Lab of Professor Hua Chen;
- Learned about Reinforcement Learning, Imitation Learning, and the widely adopted Diffusion Policy;
- Manipulate ARX robotic arms and duplicate the result of Diffusion Policy on the ARX arms.

***Project Leader*, Research on Spiking Neural Network** Jun 2024 – Aug 2024

- Conducted research on algorithms related to LIF (Leaky-Integrate and Fire) in Spiking Neural Networks
- Modified the basis of STBP algorithms based on SNN backpropagation to achieve the separation of the two signals of two channels and achieved good results on the MNIST dataset;
- Familiarized with the procedures required for scientific research, determined the research direction, conducted literature research, searched for relevant open-source code, formulated theories and validated theories with code, and wrote reports based on the research conclusion.

***Participant*, Robotic Arm Control and Computer Vision Program** Jan 2024 – May 2024

- Worked with Ph.D. students of Dr. Timothy Bretl to recognize some socket parts such as Type C with computer vision, and operated the robotic arms to pick up these parts;
- Acquired some knowledge about robot control, learned to integrate pipelines of different models, and became familiar with the use of various open source projects such as Mask-RCNN and PvNet.

***Participant*, Computer Vision Project** Apr 2023 – Nov 2023

- Assisted the research group with data annotation, and collaborated with others to annotate 1000+ ten-thousand-frame videos, each with a 100-word summary, 5 questions and answers for the entire video, and 15 questions and answers for random frames, and data was released as an open source dataset on Hugging Face;

- Gained experience of Large Language Models, Video Segmentation, and Models for Computer Vision;
- Worked with graduate students to publish papers at CVPR 2024.

***Participant*, APRIL Lab, Zhejiang University's Institute of Cyber-Systems and Control** Jun 2022 – Jul 2022

- Engaged in research on quadruped robot control based on ROS2;
- Acquired knowledge of the kinematic solution, derived motion formula of quadruped robot legs in space, and successfully simulated motion of robot legs in a simulator;
- Learned about the wide application of ROS2 in academia and improved development capabilities of C++ and Linux.

EXTRACURRICULAR ACTIVITIES

***Head*, RoboMaster Meta Robotics Team of ZJU-UIUC Institute** Sep 2022 – Present

- Acted as the captain and leader of the Embedded Team;
- Acquired knowledge about embedded development, C++, and real-time operating systems;
- Involved in the deployment of ROS2 Control in robotic work and learned to write some nodes related to motor operation and robot gesture control;
- Involved in control code development and team management, and led the team to compete in robotics competitions.

LANGUAGES & SKILLS

Languages: English - Fluent, Mandarin - Native speaker

Skills: C, Python, C++, MySQL, HTML, CSS, x86 Assembly, Embedded System Programming, CUDA Programming, RTOS, JavaScript, ROS2, Robotics