

ZHENXIANG (ROY) JIANG

Tel: (818) 239-0688 | Email: zhenxiang.jiang@outlook.com | Website: royjiang.me | San Francisco Bay Area, CA

AI Engineer/Applied Scientist with 3+ years of experience in Artificial Intelligence research and development.

Author of papers at AAAI, CVPR and ACM conferences. Skilled in a wide range of AI and development technical stacks.

PROFESSIONAL EXPERIENCE

OpusClip Inc.

Palo Alto, California, US

AI Engineer/Applied Scientist, Direct Manager: Vito Zhu

May 2025–Present

- Contributing to the development of Agent Opus (opus.pro/agent), which is an AI video agent that turns your ideas in any form into polished videos.
- Focusing on integrating real-world assets, including images, webpages, videos, and posts, into video generation pipelines.
- Led the design and implementation of core workflows for agent action and evaluation, with a particular emphasis on image and video understanding and their evaluation across different agents.
- Designed workflows for atomic template creation, seamlessly integrating real-world assets with image/video generation and editing capabilities.
- Researched ability of integrating the ability of detection, segmentation with LLM-based agent system.

Learning and Vision Lab, ECE Dept., National University of Singapore

Singapore

Research Assistant, Supervisor: Prof. Xinchao Wang

August 2023–February 2025

- Completed a diverse range of computer vision tasks, from low-level image processing to high-level scene understanding, enhancing the lab's research capabilities.
- Co-led a high-resolution non-homogeneous dehazing project that ranked 4th out of 100+ result submissions, with the project report published in CVPR Workshop 2023.
- Played a key role in a long-term XAI project in collaboration with Singapore's largest national defense R&D organization, focusing on the interpretation and explainability of detection and classification models; successfully delivered two phases of product development.
- Contributed significantly to two cutting-edge research projects—GFlow and C4D—focused on 4D dynamic scene reconstruction and understanding. In these projects, I designed and developed key modules, camera-world coordinate conversion, interactive 3D/4D visualization, and downstream tasks and evaluation metrics, which led to the publication of two high-quality papers (AAAI 2025 and ICCV 2025).

Temasek Laboratories, National University of Singapore

Singapore

Research Assistant, Supervisor: Dr. Sunan Huang

September 2023–April 2024

- Led the research and development of a high-frequency drone detection module, enhancing the on-board drone tracking system's accuracy and reliability.
- Created a fully labelled event camera drone detection dataset by integrating three fully or semi-labelled drone detection frame datasets with one unlabelled lab-collected event dataset, facilitating more accurate drone detection in research projects.

- Initiated and conducted research on facial expression recognition under face mask occlusion; developed a seven-class facial expression recognition dataset and published the findings at ACM ICCAI 2023, where the work received the Best Presentation Award.
- Led research on weakly supervised 3D human pose estimation, developing a state-of-the-art network (WS-GCN) that integrates 2D-to-3D conversion, non-local structures, bone length constraints, and weak supervision with a robust GCN framework, resulting in a publication at ACM ICCAI 2024.

- Led a team of 10 and successfully developed an intelligent online printing system called Yinlaiyinwang, transforming traditional offline printers into internet-connected smart devices.
- Established an on-campus experience store that served over 100,000 students and offered more than 15 part-time job opportunities on campus.
- Earned multiple entrepreneurship awards at both the college and university levels.

EDUCATION

SKILLS

- **Programming Languages:** Python, SQL, C++, Matlab, CudaC, Java, Shell Scripting
- **Libraries & Frameworks:** PyTorch, NumPy, Pandas, Matplotlib, Scikit-Learn, OpenCV, LaTeX
- **Tools & Platforms:** Linux, MySQL, Git, Kubernetes, Docker, FastAPI, Nginx, GitHub Actions, Google Cloud
- **Languages:** English, Mandarin Chinese

PUBLICATIONS

- Wang, S., **Jiang, Z.**, Yang, X., & Wang, X. (2025). C4D: 4D Made from 3D through Dual Correspondences. In *Proceedings of the IEEE/CVF International Conference on Computer Vision* (pp. 7570-7580).
- Wang, S., Yang, X., Shen, Q., **Jiang, Z.**, & Wang, X. (2025). GFlow: Recovering 4D World from Monocular Video. In *Proceedings of the AAAI Conference on Artificial Intelligence* (Vol. 39, No. 8, pp. 7862-7870).
- **Jiang, Z.**, Chen, Y. (2024, April). WS-GCN: Integrating GCN with Weak Supervision for Enhanced 3D Human Pose Estimation. In *Proceedings of the 2024 10th International Conference on Computing and Artificial Intelligence* (pp. 6-13).
- Ancuti, C. O., Ancuti, C., Vasluianu, F., ... ,Wu, Y., **Jiang, Z.**, Liu, S., Yang, X., Jing, Y., ... & Busch, C. (2023). NTIRE 2023 HR nonhomogeneous dehazing challenge report. In *Proceedings of the IEEE/CVF Conference on Computer Vision and Pattern Recognition* (pp. 1808-1825).
- **Jiang, Z.** (2023, March). A Novel Seven-Class Facial Expression Recognition Method with Face Mask. In *Proceedings of the 2023 9th International Conference on Computing and Artificial Intelligence* (pp. 178-184).