

Zichen Zhao

Research Assistant

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EDUCATION

Nanjing University of Aeronautics and Astronautics, Electrical and Information Engineering

B.S. of Engineering, GPA: 3.5/5.0

Nanjing, China

Sep. 2022 - Jun. 2026

EXPERIENCE

Research Assistant, MVP Lab, NUA

Improved HandsOnVLM(temporarily named)

Nanjing, China

Mar. 2025 - Present

- **Contribution:** Improved the Trajectory Decoder by introducing a diffusion-based mechanism to increase prediction diversity and accuracy, and explored its applicability to VLA tasks.
- **Progress:** Improved the Trajectory Decoder by introducing a diffusion-based mechanism to increase prediction diversity and accuracy, and explored its applicability to VLA tasks.
- **Expected Outcome:** The work is planned to be submitted to CVPR 2025 in November.

Independent Research Project, NUA

Improved YOLOv11 for Aerial Small Object Detection

Nanjing, China

Mar. 2025 - Present

- **Contribution:** Developed an enhanced YOLOv11-based algorithm tailored for UAV aerial imagery.
- **Progress:** Designed a modified detection head supporting P2-P5 inputs, inspired by the AFPN architecture, and introduced a progressive feature fusion strategy to mitigate semantic gaps and information loss.
- **Performance:** Achieved moderate improvements on VisDrone2019, raising mAP50 from 34.8% to 38.1% and mAP50-95 from 20.4% to 22.9% over baseline YOLOv11.

INTERNSHIPS

Zhejiang University

Intern of summer camp, College of CS

Hangzhou, China

Jul. 2025 - Aug 2025

Project: AI Study Companion

- **Contribution:**
 - Developed workflows and plugins on the Coze platform by integrating APIs of open-source text-to-image (t2i) and text-to-video (t2v) models.
 - Developed the frontend of a WeChat Mini Program for t2i and t2v generation, integrating APIs from workflows built on the Coze platform.
 - Leveraged Volcengine Object Storage Service to temporarily store media assets and enable asynchronous long-video processing, and developed a custom object storage plugin in the Coze IDE utilizing this service.

SKILLS

- **Deep-learning:** PyTorch, TensorFlow
- **Programming:** Python, C++, Golang, git, Linux/Bash/Shell scripting,

AWARDS

LanQiao Cup, Jiangsu Provincial Contest - C/C++ Category

Third Prize

Nanjing, China

May 2024

Academic Scholarship

Third and Second Prize

Nanjing, China

2022, 2023, 2024

Outstanding Student Scholarship

Second Prize

Nanjing, China

2022, 2023, 2024