Zhenyuan Chen

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About Me

I completed my undergraduate studies at Zhejiang University, School of Earth Sciences, and am currently a third-year master's student at the same institution, under the supervision of Prof. Feng Zhang. I am fascinated by artificial intelligence and deep learning, focusing on advancing vision-language foundation models and their applications in Earth science. My research emphasizes the development and application of multimodal large language models and diffusion models for remote sensing, with a particular interest in disaster analysis and monitoring.

Education

Zhejiang University, School of Earth Science — Hangzhou, China
M.S. in Earth Science — *2023 – Present*

Zhejiang University, School of Earth Science — Hangzhou, China
B.S. in Earth Science — *2019 – 2023*

Research Interests

- Application of **multimodal large language models** in remote sensing
- Application of **diffusion models** in remote sensing

Projects

Generative Models for Data Augmentation — **Project Page** **GitHub** — Summer 2025
Teaching Assistant — *Zhejiang University*

Introduction to Diffusion Models — **GitHub** — Summer 2024
Teaching Assistant — *Zhejiang University*

Publications

Zero-shot Image Editing using Video Generation Model — In Progress
Co-Author — *Zhejiang University*

Working on a novel approach for zero-shot image editing leveraging video generation models.

RSCC: A Large-Scale Remote Sensing Change Caption Dataset for Disaster Events — NeurIPS 2025
First Author — *Zhejiang University*

Introduced RSCC, the first large-scale dataset for disaster-aware bi-temporal remote sensing, featuring 62,351 pre/post-disaster image pairs with rich human-like change captions. Benchmarked and enhanced vision-language models for temporal image understanding in remote sensing, establishing state-of-the-art performance in detailed change captioning.

Competitions

NeurIPS - Ariel Data Challenge 2025 — **GitHub** — Silver Medal (29th, top 3%), 2025
Adviser — *Machine Unlearning Team*

Social Media

Bilibili — **Channel** — 2023 – Present
Content Creator — *AI Education & Research*

Sharing advanced AI knowledge through video tutorials, paper reviews, and research insights. Covering topics including diffusion models, generative AI, computer vision, and deep learning. **18.2K+ views** across 129+ educational videos.