

Wenxin Chen

cwx@umich.edu | Ann Arbor, MI | Research Interest: Diffusion Models, RL, Reasoning

Education

University of Michigan, Ann Arbor
BSE in Computer Science

August 2026 – May 2028

Shanghai Jiao Tong University

August 2024 – May 2028

BSE in Electrical and Computer Engineering, Global College

GPA 3.8/4.0

- Relevant Coursework: EECS281 Data Structures and Algorithms, MATH217 Linear Algebra, EECS301 Probabilistic Methods in Engineering, EECS203 Discrete Mathematics, EECS216 Intro to Signals & Systems.

Research Experience

[DENG Lab, SJTU](#)

September 2025 – August 2026

Advisor: [Zhijie Deng](#)

Shanghai

- Designed a training recipe that **instills tactile knowledge into a VLA** backbone that improves the performance of contact-rich manipulation tasks.
- Developed and built a **diffusion forcing algorithm** that injects high frequency tactile inputs into the VLA backbone which enables reactive control in contact-rich manipulation tasks.
- Participated in the implementation and training of an **efficient On-Policy Self Distillation algorithm** of a video generation model to enhance its physically-plausible video generation capabilities.

[PIXEL Lab, SJTU](#)

May 2026 – August 2026

Advisor: [Jiezhong Cao](#)

Shanghai

- Proposed and implemented an **end-to-end video editing model with causal grounding capabilities** that excels in object removal tasks, which beats the baseline models including Bernini, VOID, ProPainter both on the ROSE benchmark and our own proposed counterfactual editing benchmark.
- Architected and engineered an **automatic data generation pipeline** from public video datasets for counterfactual grounding and COT reasoning labels.
- Designed and developed a **physically-plausible counterfactual video editing benchmark** that includes 92 object removal tasks from simulation and real life videos.

[BCMI Lab, SJTU](#)

May 2025 – September 2025

Advisor: [Weilong Zheng](#), [Bao-Liang Lu](#)

Shanghai

- Designed a **multi-task instruction-tuning data pipeline** that converts raw EEG waveforms and structured clinical metadata into diverse instruction-following samples (captioning, open-ended QA, MCQ), enabling instruction tuning of a 3B VLM that surpasses GPT-4o by **+10 points** on clinical EEG MCQ accuracy.
- Built a **unified training, inference, and evaluation framework** with reproducible protocols and ran ablation studies to isolate the design choices driving fine-grained clinical interpretation quality.
- Constructed **CerebraGloss-Bench**, an open-ended benchmark measuring the generalization and fine-grained clinical EEG interpretation ability of VLMs.
- Developed an **artifact-aware meta-contrastive framework** for fast personalization of EEG emotion models under strong subject variability, cutting offline preprocessing dependence and validated across multiple datasets and cross-session settings.

Publications

- **Reason, Ground, and Render: Consequence-Grounded Counterfactual Object Removal in Video.** W.Chen, J. Cao. *Under Review*.
- **CerebraGloss: Instruction-Tuning a Large Vision-Language Model for Fine-Grained Clinical EEG Interpretation.** W. Gu, T. Luo, Q. Zhang, M. Ye, X. Shen, **W. Chen**, Y. Li, Y. Zhang, J. Hong, B.-L. Lu, W.-L. Zheng. *ICLR 2026*.
- **BrainTune: An Artifact-Aware Meta-Contrastive Framework for Fast and Lasting Personalization of EEG Emotion Models.** W. Gu, **W. Chen**, B.-L. Lu, W.-L. Zheng. *CogSci 2026*.

Service

Global College, SJTU
Teaching Assistant

September 2025 – August 2026
Shanghai

- Served as teaching assistant for three courses spanning three semesters: MATH186 Honors Mathematics, ENGL200 Academic Writing II, and EECS215 Introduction to Circuits.
- Supported lab sessions and recitations for EECS215, guiding **100+ students** through circuit measurement and debugging in hands-on lab settings.
- Held weekly office hours, recitations and provided learning support for **90+ students** in MATH186, an honors calculus/analysis sequence with a heavy proof component.
- Delivered one-on-one writing tutoring for **25 students** in ENGL200 and graded assignments with detailed feedback on argument structure and technical clarity.

Advising Center, SJTU

May 2025 – Present

Academic Advisor

Shanghai

- Organized workshops on college applications, course selection, and academic planning for prospective and current Joint Institute students.
- Held walk-in office hours providing individualized advising on course selection, major planning, and research opportunities.

Technology Division, Student Union, SJTU

September 2024 – Present

Member

Shanghai

- Organized technical workshops on Linux and VSCode, onboarding first-year students to development environments used across the ECE curriculum.
- Maintained division tooling and provided technical support for student-run events.
- Recognized as **Outstanding Member** for contributions to workshop programming.

Skills

- **Languages:** Python, C/C++, MATLAB, LaTeX
- **Frameworks & Tools:** PyTorch, HuggingFace Transformers, Git, Linux, Bash, Docker
- **Research:** VLM/VLA, Instruction Tuning, Diffusion Models, Transformer Architectures, RL

Honors & Awards

- Jackson and Muriel Lum Scholarship University of Michigan, 2026
- Excellent Undergraduate Scholarship SJTU, 2025
- University Physics Competition, Team Gold Medal 2024
- Outstanding Member, Student Union Technology Division SJTU, 2025