Junhua Huang

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EDUCATION

University of California, Los angles — **Los Angeles, CA**
Master of Electrical computer engineering — *anticipated July 2027*

University of Rochester — **Rochester, NY**
BS in Computer Science, BS in Business, Cluster in Studio Art — *May 2025*

- Highest distinction, cum laude , Dean's list 8/8semesters , Schwartz Discover research Grant 2022

ENGINEERING EXPERIENCE

University of California, Los angles — **La, CA**
Student Researcher, ECE Department, Seizure Lab — *Aug 2025-Oct 2025*

- **Scaled** VLM inference:deployed 3 models, boosted throughput **16.7**× (0.3→5 rps) via **asynchronous** request batching, optimized latency by introducing a caching layer using prefix-cache hit ~**73%.**
- Built a medical visual dataset of **10k** records on **8** features on epilepsy seizure.**CVPR** 2026 underreview

University of Rochester, Computer Science Department — **Rochester, NY**
Student Researcher, Professor Chenliang xu's lab — *May 2025-Sep2025*

- Conducted research on **VLM**-guided audio remixing's improvement;transfer experience from traditional movie composers. Achieved **SOTA** with **~9%** fewer parameters using a simplified architecture and prompt-variant sweeps; **First author**,submitted at **IEEE ICASSP** 2026.
- Built an **async**, sharded caption-embedding pipeline; boosted throughput **16×** and raised KV-cache hits **6%→57%** via chunking + prefix-cache; prototyped gated fusion & muti-head attention Module.

University of Rochester, Computer Science Department — **Rochester, NY**
Student Researcher, Professor Jiebo Luo's lab — *Aug 2024 - Apr 2025*

- Reconstructed animal images from skeletons using **Stable Diffusion (I2I)**; applied **partial diffusion** to retain segmentation and **sparse-cloud encoders** to inject spatial cues—bridging long domain gaps.
- Improved facial realism via **RLHF (DPO)** with **LoRA** fine-tuning; built preference pairs and tuned prompts/schedules on UR Linux clusters.

Farsee2 — **Wuhan, China**
Machine Learning Internship — *July 2024 - Sep 2024*

- Cut floating artifacts **~40%** in Gaussian Splatting by adding **angle-of-incidence** and depth/normal supervision losses for better geometric consistency.
- Built customizable generation scripts with multi-machine parallelism; integrated into the product pipeline to improve throughput and reliability for prototype demo.

Goergen Institute for Data Science — **Rochester, NY**
Student Research ,University of Rochester — *Jan 2024 - Jun 2024*

- Designed **two ideology-bias metrics** and a **blind-test harness**; automated data collection and reproducible scoring for LLM political-ideology evaluation.
- Found LLMs rate manifestos **~73.64% less extreme** than ground truth; paper **accepted** in *Journal of Political Institutions & Political Economy* (**SSRN**: https://ssrn.com/abstract=4907043).

PROJECTS

Body Signals Analysis of Smoking and Drinking — *Sep 2023 - Dec 2023*

- Preprocessed over 900k records by selecting relevant attributes through feature engineering applied **PCA** to **2 principal + 2 auxiliary components**, capturing the dominant variance for compact modeling.
- Trained **SVM** and **XGBoost** for 5 categories of smoking/drinking prediction with **72/81% accuracy**.

RESEARCH PAPER AND PREPRINTS

- **Caliskan, Cantay and Huang, Junhua** and Huang, Yiyang and Lin, Ruoxuan and Shan, Wanting, Using Generative AI to Calculate Party Positions: A Comparison of Human Experts and Large Language Models (July 26, 2024). Available at **SSRN**: https://ssrn.com/abstract=4907043
- Pinxin Liu, Luchuan Song* **,Junhua Huang**, Chenliang Xu, GestureLSM: Latent Shortcut based Co-Speech Gesture Generation with Spatial-Temporal Modeling. **ICCV 2025**,https://arxiv.org/abs/2501.18898
- **Junhua Huang***, Chao Huang, chenliang xu, Semantic Visually-Guided Acoustic Highlighting with Large Vision-Language Models. Submitted to **ICASSP** 2026(Sep 17,2025).