

Zixian Gao

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EDUCATION EXPERIENCE

- **The University of Tokyo** Oct. 2025 - Jun. 2027 (Expected)
Master of Information Science and Technology
Advisor: [Hideki Nakayama](#)
- **University of Electronic Science and Technology of China** Sep. 2021 - Jun. 2025
Bachelor of Computer Science and Technology
Advisor: [Xing Xu](#), GPA: 3.92 / 4.00

RESEARCH EXPERIENCE

- **Shanghai AI Lab** Dec. 2024 - Now
 - **Mentors:** [Chao Yang](#) and [Zhanhui Zhou](#).
 - **Topic:** Track multimodal advancements, providing technical insights by reproducing papers. Optimize large models using PyTorch to address hallucinations and safety, and evaluate performance via comparative experiments.
- **University of Virginia** May 2024 - Nov. 2024
 - **Mentors:** [Yu Meng](#).
 - **Topic:** Conducted extensive research on Large Language Models and Multimodal Large Language Models under the supervision of Yu Meng, working closely with doctoral students.
- **University of North Carolina at Chapel Hill** Dec. 2023 - Apr. 2024
 - **Advisor:** [Tianlong Chen](#) and [Zhen Tan](#).
 - **Topic:** Worked closely with Supervisor Tianlong Chen on in-depth research involving Large Language Models, Mixture of Experts, and Time Series Models.
- **Centre of Future Media@UESTC** Jun. 2022 - Nov. 2023
 - **Advisor:** [Xing Xu](#).
 - **Topic:** Collaborated with Supervisor Xing Xu and doctoral students in extensive research on multimodal learning, computer vision and trustworthy machine learning.

PUBLICATION LIST ([SCHOLAR PAGE](#))

1. **Embracing Unimodal Aleatoric Uncertainty for Robust Multimodal Fusion**
IEEE/CVF Conference on Computer Vision and Pattern Recognition, 2024([CVPR 2024](#))
Zixian Gao*, Xun Jiang*, Xing Xu, Fumin Shen, Yujie Li, Heng Tao Shen (* equal contribution)
2. **Uncertainty-Debiased Multimodal Fusion: Learning Deterministic Joint Representation for Multimodal Sentiment Analysis**
IEEE International Conference on Multimedia and Expo, 2024([ICME 2024](#))
Zixian Gao, Xun Jiang, Hua Chen, Yujie Li, Yang Yang, Xing Xu
3. **Enhanced Experts with Uncertainty-Aware Routing for Multimodal Sentiment Analysis**
ACM International Conference on Multimedia, 2024([ACM MM 2024](#))
Zixian Gao, Disen Hu, Xun Jiang, Huimin Lu, Heng Tao Shen, Xing Xu

PROJECT EXPERIENCE

- **Local Vision Alignment.** (Key Words: [Multimodal LLMs](#), [Hallucination](#), [Robustness](#)) 2025
 - 1) Discover and investigate the local horizon of MLLMs.
 - 2) Guide the decoding process using the prior information of the local horizon.
- **Depth Mixture of Experts for LLMs.** (Key Words: [LLMs](#), [Mixture of Experts](#), [Efficiency](#)) 2024
 - 1) Scale up large models and created a deeper and more efficient model.
 - 2) Added Depth Mixture of Experts mechanism to the model, and conducted pretraining and fine-tuning.
- **Pose Anything.** (Key Words: [3D Vision](#), [Pose Estimation](#)) 2024
 - 1) Convert the 6DoF representation in pose estimation to a 3D oriented bounding box.
 - 2) Achieve a universal estimation method for objects of different categories.
- **Neural Network in Finance.** (Key Words: [AI for Finance](#), [Time Series Models](#), [Data Augmentation](#)) 2024
 - 1) Utilize Data Augmentation to enhance financial data.
 - 2) Employ time series models for processing financial data.

OTHER INFORMATION

Languages: Chinese - Native, English - Proficient ([IELTS: 6.5](#))