# Zixian Gao

Homepage: https://zixiangao.github.io/

Email : zixian.gaoo@gmail.com
Github: https://github.com/ZixianGao

## 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 - Present
  - **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. **Mitigating Object Hallucination via Robust Local Perception Search**
   *Conference on Empirical Methods in Natural Language Processing, 2025(EMNLP 2025, Under Review)*
   **Zixian Gao**, Chao Yang, Zhanhui Zhou, Xing Xu, Chaochao Lu
2. **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)
3. **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
4. **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

- **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)