Zhuohang **Jiang**

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Introduction

I am currently a **Ph.D. candidate** in **Computer Science** at The Hong Kong Polytechnic University, co-advised by **Prof. Qing Li** and **Prof. Wenqi Fan**. My current Cumulative GPA is 3.60/4.00.

I earned my **B.Eng.** in **Computer Science and Technology** from **Sichuan University (SCU)** in 2024, graduating with a Major GPA of 3.79/4.0 (89.39/100) and an Overall GPA of 3.78/4.0 (89.25/100).

From 2022 to 2024, I worked as a **research assistant** at **MachineILab**, under the supervision of **Prof. JiZhe Zhou**, where I participated in research projects funded by the **National Natural Science Foundation of China** and the **National Key R&D Program of China**.

Research Summary

My research interests lie in **large language models (LLMs)**, **retrieval-augmented generation (RAG)**, and **hierarchical reasoning**. I focus on both **theoretical foundations** and practical applications of LLM-based systems.

I have contributed to the design of high-impact benchmarks, such as **HiBench** (first-author **oral** at **KDD 2025**), and comprehensive surveys like **WebAgents**. My work has been published in **top-tier conferences**, including **NeurIPS 2024** (spotlight) and **AAAI 2025**, and has accumulated **80+ citations**, with an **h-index of 4**.

Education

The Hong Kong Polytechnic University — *Hong Kong SAR*

PH.D. COMPUTER SCIENCE — *Sep 2024 – Present*

- Cumulative GPA: 3.60/4.00
- Advanced Machine Learning (A), Advanced Topics in Optimization (A-), Advanced Topics in Visual Computing (A-)
- Passed: Research Seminar I & II, Practicum I, Engineering Ethics, Presentation Skills

Sichuan University — *Chengdu, China*

B.E. COMPUTER SCIENCE AND TECHNOLOGY — *Sep 2020 – Jun 2024*

- Major GPA 3.79/4.00; Overall GPA 3.78/4.00
- Research Assistant, MachineILab (2022-2024)

Selected Publications

- *HiBench: Benchmarking LLM Capability on Hierarchical Structure Reasoning*
  Z. Jiang, P. Wu, Z. Liang *et al.* arXiv:2503.00912, 2025. **KDD 2025** Benchmark&Dataset Track. CCF-A.
- *A Survey of WebAgents: Towards Next-Generation AI Agents for Web Automation with Large Foundation Models*
  L. Ning, Z. Liang, **Z. Jiang**, H. Qu, Y. Ding, W. Fan, X. Wei, S. Lin, H. Liu, P. S. Yu *et al.* 2025. **KDD 2025** Tutorial Track. CCF-A.
- *Mesoscopic Insights: Orchestrating Multi-Scale & Hybrid Architecture for Image Manipulation Localization*
  X. Zhu, X. Ma, L. Su, **Z. Jiang** *et al.* **AAAI 2025**. CCF-A.
- *Beyond Visual Appearances: Privacy-Sensitive Objects Identification via Hybrid Graph Reasoning*
  Z. Jiang, B. Tong *et al.* arXiv:2406.12736, 2024.
- *IMDL-BenCo: A Comprehensive Benchmark and Codebase for Image Manipulation Detection & Localization*
  X. Ma†, X. Zhu†, L. Su, **Z. Jiang**† *et al.* **NeurIPS 2024** Benchmark Track — **Spotlight**. († **Co-first Authors**) CCF-A.
- *Perceptual MAE for Image Manipulation Localization: A High-level Vision Learner Focusing on Low-level Features*
  X. Ma, J. Zhou, X. Xu, **Z. Jiang**, C.-M. Pun *et al.* arXiv:2310.06525, 2023.
- *IML-ViT: Image Manipulation Localization by Vision Transformer*
  X. Ma, B. Du, **Z. Jiang** *et al.* arXiv:2307.14863, 2023.
- *TPTGAN: Two-Path Transformer-Based Generative Adversarial Network Using Joint Magnitude Masking and Complex Spectral Mapping for Speech Enhancement*
  Z. Liu, **Z. Jiang**, W. Luo *et al.* **ICONIP 2023**, Lecture Notes in Computer Science. CCF-C.

Research Experience

School of Computing, National University of Singapore (NUS) — *Singapore*

Summer School — *Aug 2023*

- Participated in NUS Summer School research program. Completed a face recognition project involving CNN-based feature extraction and similarity matching.

MachineILab, Sichuan University — *Chengdu, China*

Research Assistant — *Sep 2022 – Jun 2024*

- Developed graph-based frameworks for privacy-sensitive object detection under NSFC projects.

Invited Talks

Reasoning Day @ KDD 2025, Toronto, ON, Canada

Understanding Hierarchical Data with Large Language Models: RAG, Structural Reasoning, and Future Directions — *Aug 2025*

- Invited talk on LLMs for hierarchical data understanding and future directions in reasoning-augmented retrieval.

Selected Projects

HiBench: Benchmark for Hierarchical Reasoning — *First Author & Team Leader*

KDD 2025 Benchmark — *2025*

- 39k queries across six scenarios; open-sourced with evaluation toolkit.
- Responsible for architecture design, key code implementation, and team coordination.

Meta CRAG-MM: Multimodal Retrieval Challenge — *Team Leader*

KDD 2025 CUP — *2025*

- Achieved **12th place** among hundreds of global teams.
- Responsible for architecture design, key code implementation, and team coordination.

IMDL-BenCo: Benchmark for Image Manipulation Detection & Localization — *Co-First Author*

NIPS 2024 Benchmark — *2024*

- A comprehensive benchmark for the IMDL field, with dataset, baseline, and evaluation code.
- Implemented GPU-accelerated evaluators and co-authored the manuscript.

Selected Honors & Awards

2025	**12th Place (Global)**, KDD Cup 2025 — Meta CRAG-MM	*Toronto, Canada*
2024	**Spotlight Award**, NeurIPS 2024 — IMDL-BenCo (Co-first Author)	*Vancouver, Canada*
2024	**Outstanding Graduate**, Sichuan University & Sichuan Province	*Sichuan, China*
2023	**Provincial First Prize**, China Collegiate Computer Design Competition	*Sichuan, China*
2023	**Tencent Scholarship**, Top 2% Awardee, Sichuan University	*Sichuan, China*
2023	**A-Level Certificate**, Comprehensive Quality Evaluation	*Sichuan, China*
2022	**Top 1% Scholarship**, Comprehensive First-Class Scholarship, Sichuan University	*Sichuan, China*
2022	**Outstanding Student Award**, Top 5%, Sichuan University	*Sichuan, China*

Professional Service

Reviewer — *AoE*

Conference & Journal — *2023-2025*

- TIP, CVPR 2024, NeurIPS 2024, KDD 2025

Teaching Assistant — *Hong Kong SAR*

PolyU — *2024–2025*

- Assisted in teaching undergraduate and postgraduate courses: Artificial Intelligence (COMP4431) and NLP Practicum (COMP5423).

Skills

Programming	Python, C++, Bash, C, Node.js, LaTeX
Frameworks & Tools	PyTorch, Hugging Face, NumPy, OpenCV, Docker, Git, Anaconda
Languages	Mandarin (native), English (fluent, IELTS 6.5)