Wenjia Jiang

2003-03 │ Male │ China │ https://jwj1342.github.io/

(+86) 133 9552 8507 │ jiangwenjia@westlake.edu.cn

Education

Henan University　(China)　-　**Software Engineering**　-　**Bachelor**　　　　Sep 2021 - Jun 2025

Overall Ranking: top 3% (87.17)

Selected Coursework: C++ Programming(99), Data Structures(92), Computer Networks(91), Mathematical Modeling(95), Database Systems(92), Digital Logic(96), Java Programming(94), C# Programming(94)

Research Interests

Large Language Models (LLMs), LLM Agents, Multimodal Models, Human-AI Interaction

Research Experience

Generate SQL by Querying Trees Like Human Expert　-　**Research Leader**　　　Jun 2025 - Present

- Designed a novel framework to enhance the accuracy of LLM-based agents in complex NL2SQL tasks for enterprise scenarios. Simulated human data scientists' database exploration via Monte Carlo search, leveraging the discovered structural information to guide SQL generation for challenging queries. Preliminary evaluation on benchmarks such as Spider 2.0 shows promising results.
- Conducted research as a Research Assistant at Westlake University, jointly supervised by Prof. *Yiwei Wang* (University of California, Merced) and Prof. *Chi Zhang* (Westlake University, China). Currently preparing a submission to **ICLR 2026**.

Paper2Beamer　-　**Coauthor**　　　　　　　　　　　　　　　　　　　　Jun 2025 - Present

- Under the guidance of Prof. *Chi Zhang*, developed a system leveraging an LLM-based agent to convert academic papers into presentation slides. Investigated interactive slide modification with humans in the loop, drawing on concepts from human-computer interaction and educational theory.
- Aimed to reduce the workload involved in slide creation while enabling automated production. Currently preparing a submission as a co-author to **CHI 2026**.

AppAgentX　-　**Research Leader**　　　　　　　　　　　　　　　　　Nov 2024 - Mar 2025

- Conducted research as a visiting student at Westlake University, focusing on the automated control of a mobile phone using LLM. The efficiency of operating the screen is greatly accelerated using agentic methods combined with chained evolutionary storage mechanisms. Achieved a 59.8% efficiency improvement over the previous SOTA, under the supervision of Prof. *Chi Zhang* and Prof. *Xu Yang* (Southeast University, China).
- Manuscript under review; preprint available at arXiv: 2503.02268(10+ citations).
- Contributed to the AppAgent series as a co-author of its V2 version, accepted at **ICME 2025**.

Medical Agent Architecture Search　-　**Coauthor**　　　　　　　　　　Dec 2024 - Apr 2025

- Proposed a hierarchical workflow evolution framework for automated medical agent design, supporting iterative modifications at node, structure, and reasoning levels.
- Outperformed static IO, Chain-of-Thought, and Round-Table baselines in skin disease diagnosis, offering a novel perspective for building adaptable agents in vertical medical domains.
- Accepted at **ACM MM 2025**; also available as an arXiv preprint: 2504.11301

VVI-ReID with Skeleton Driven Temporal Guidance - **Research Leader**   Oct 2022 - Jun 2023

- Conducted research at the Institute of Software, Chinese Academy of Sciences, focusing on pedestrian matching challenges under visible and infrared light within computer vision.
- Introduced skeleton data to align modal features, implementing Timing-guided cross-modal interaction module and Graph Attention Convolution to refine interaction analysis. Available on arXiv: 2411.11069.

Projects

1. **AppAgentX:** A GUI agent framework based on behavioral evolution. (Page 500+ stars)
2. **Paper2Beamer:** an automated system that generates Beamer slides directly from academic papers. (Code)
3. **Van Gogh:** A multi-platform AI painting community app built with the Flutter framework, allowing users to transform their image into various painters' styles.(Code)

Competition Experience

Huawei Developer Contest - **Team leader**   Sep 2023 - Nov 2023

Led the team to win the "**National First Prize**", hosted by Huawei to encourage developers to use ICT technologies to solve real-world problems. Operated across the full technology stack to architect a production-level solution on Huawei Cloud.

Skills

- Language: **IELTS 6.5**
- Deep Learning: PyTorch, Transformers, Computer Vision
- LLM Applications: LangChain/Camel AI, Prompt Engineering, OpenAI API, RAG systems
- Data & Storage: Vector Databases, Graph Database, JSON/HDF5
- Tools & DevOps: Git, Docker, FastAPI, Jupyter, Hugging Face

Honors & Awards

Merit Student *(2021 – 2025, four times)*
Excellent Student Cadre *(2021 – 2025, four times)*
University Scholarship *(2021 – 2025, four times)*
Individual Scholarship *(12 times)*
Excellent Graduation Internship *(2025)*
Excellent Graduate *(2025)*