

Jiarong Liang

+1 226.998.7388 | +86 13893281716 | jiarongliangcs@gmail.com | <https://dream233.github.io/>

EDUCATION

University of Waterloo <i>Research Assistant at the TIGER Lab, advised by Prof. Wenhua Chen.</i>	Waterloo, Canada 2025 – Present
Washington University in St. Louis(WUSTL) <i>Master of Science in Computer Science, GPA 4.0/4.0</i>	St. Louis, USA 2022 – 2024
South China University of Technology(SCUT) <i>Bachelor of Engineering in Computer Science, GPA 3.85/4.0, Rank 8/160</i>	Guangzhou, China 2018 – 2022

PUBLICATIONS

- VisPhyWorld: Probing Physical Reasoning via Code-Driven Video Reconstruction** Under review ICML'26
- Jiarong Liang*, Max Ku*, Ka-Hei Hui, Ping Nie, Wenhua Chen.
 - Built **VisPhyWorld**, an execution-based benchmark that tests MLLMs' physical reasoning by having them generate executable simulator code from visual inputs.
 - Released **VisPhyBench** (209 scenes, 108 templates) and showed SOTA MLLMs often match semantics but fail to recover physical parameters and consistent dynamics.
- SWE-Next: Scalable Real-World Tasks for Software Engineering Agents**
- Jiarong Liang*, Zhiheng Lyu*, Xiangchao Chen, Zijie Liu, Ping Nie, Yuyu Zhang, Wenhua Chen.
 - Built **SWE-Next**, an execution-grounded pipeline that automatically turns real GitHub pull requests into runnable tasks by validating commit pairs via test execution and filtering for strict improvements without regressions.
 - Introduced reusable environment profiles and containerized, gated trajectory collection to cut build/storage overhead and enable scalable dataset construction and stronger downstream SWE agent performance.
- VisCoder2: Building Multi-Language Visualization Coding Agents** ICLR'26
- Yuansheng Ni*, Songcheng Cai*, Xiangchao Chen*, Jiarong Liang, Zhiheng Lyu, Jiaqi Deng, Kai Zou, Ping Nie, Fei Yuan, Xiang Yue, Wenhua Chen.

EXPERIENCE

Software Engineer Intern <i>Tencent</i>	2020 – 2021
• Contributed to servers cluster stability of mobile League of Legends and Honor Of Kings . • Implemented a back-end program using Golang responds to user requests, uses redis as a cache, and mysql stores data, which can handle a large number of requests in a short time. • Improved the stability and containerized the servers cluster by using Docker and Golang to improve efficiency • Containerized the back-end services using Kubernetes and Golang to manage over 20,000 servers • Built master node to control work node using Kubernetes , built server node management to allocate free resources and removed the problematic nodes, which improved stability rate by 18% for system • Featured across 5 news networks attracted over 30,000 new users using app	
Graduate Research Assistant <i>Washington University in St. Louis</i>	2022 – 2024

TECHNICAL SKILLS

Languages: Swift, UIKit, Golang, Java, Python, C/C++/C#, SQL, JavaScript, HTML/CSS

Technology Stack: Figma, Docker, Kubernetes, Vue, Node.js, Flask, Git, REST API, AWS, Apache, Nginx, Redis, MySQL

LLM/Agent Stack: vLLM, LiteLLM, Hugging Face Transformers, DeepSpeed, ms-swift, Ray, LLaMA-Factory