Qunzhong WANG

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Objective

To apply for a summer internship (remote/in person) in 2026.

Education

The Chinese University of Hong Kong — Hong Kong, China
Double Major in Mathematics and Information Engineering — Sep 2023 - Jul 2027 (Exp.)
Overall GPA: 3.927/4.000

University of Washington — Seattle, USA
Exchange Program in Computer Science and Engineering — Sep 2025 - Dec 2025

Research Interests

- **Principles of AI Systems backed by Math**: Understanding the mathematical principles behind model representation capacity, training dynamics, and generalization. Leveraging these principles to design better and more scalable architectures, optimizers, training methods.
- **Reinforcement Learning on Large Models**: Aligning Large Language Models (LLMs), Vision-Language Models (VLMs), and their derivative Agents with specific human preferences and demands, with techniques like Reinforcement Learning from Human Feedback (RLHF) and Reinforcement Learning with Verifiable Reward (RLVR).

Academic Experience

- **Database Research Group, The Chinsese University of Hong Kong** — Hong Kong, China
  Research Assistant, Advised by Prof. Hong Cheng — *May 2024 - Sep 2024*
  - **Research Focus**: Provided key theoretical proofs for a transfer learning approach, Prompting, in Graph Neural Networks.
- **The Alan Turing Institute, The United Kingdom** — Edinburgh, United Kingdom
  Research Assistant, Advised by Prof. Sotirios Sabanis — *Jun 2025 - Aug 2025*
  - **Research Focus**: Convergence analysis of stochastic algorithms in optimization algorithms.
- **Department of Computer Science, Princeton University** — Princeton, USA
  Research Assistant, Advised by Prof. Zhuang Liu — *Sep 2025 - Present*
  - **Research Focus**: Reasoning properties of VLM under supervised fine tuning & reinforcement learning

Industry Experience

- **Kling AI technology Department, Kuaishou Technology** — Shen Zhen, China
  Internship, Worked closely with fellows from MMLab, CUHK. — *Oct 2024 - Sep 2025*
  - **Research Focus**: Post-Training of Video Generation Models and Adapting Vision-Language Models as Reward Models

Publication & Working Papers

1. Qunzhong Wang*, Xiangguo Sun*, Hong Cheng. **Does Graph Prompt Work? A Data Operation Perspective with Theoretical Analysis**. International Conference on Machine Learning (ICML), 2025. [Paper] [arXiv] [Code]
2. Yilei Jiang*, Yaozhi Zheng*, Yuxuan Wan, Qunzhong Wang, Jiaming Han, Michael R. Lyu, Xiangyu Yue. **ScreenCoder: Advancing Visual-to-Code Generation for Front-End Automation via Modular Multimodal Agents**. Under review ICLR 2026. [Paper] [arXiv] [Code]
3. Qunzhong Wang*, Jie Liu*, Jiajun Liang*, Yilei Jiang, Yuanxing Zhang, Yaozhi Zheng, Xintao Wang, Xiangyu Yue, Jiaheng Liu. **VR-Thinker: Boosting Video Reward Models through Thinking-with-Image Reasoning**. Under review ICLR 2026. [Paper] [arXiv] [Code]

Honors & Awards

- Talent Development Scholarship (HK$10,000 awarded by HK Government) 2025
- Professor Charles K. Kao Research Exchange Scholarships (HK$50,000 awarded by CUHK) 2025
- Meritorious Winner, International Mathematical Contest in Modeling (Top 4%) 2024
- Dean's List, CUHK 2024
- 11th in East Division, Simon Marais Mathematics Competition 2023
- Prof Omar Wing Mem Scholarship (HK$40,000 awarded by CUHK) 2023
- Soong Ching Ling Scholarship (¥400,000 awarded by Chinese Government) 2023
- Admission Scholarship (HK$50,000 awarded by CUHK) 2023
- **Gold Medal, China Mathematics Olympiad (National final)** 2022
- First Prize, China Physics Olympiad (Provincial) 2022
- First Prize, China Chemistry Olympiad (Provincial) 2022

Foundations

- **Main Courses**:
  Mathematics: Real Analysis, Complex analysis, Partial Differential Equations, Probability Theory
  Computer Science: Algorithm Design & Analysis, Computer Organization & Architecture, Operating System
- **Technical Skills**:
  Languages: C, C++, Python, Matlab, SQL, HTML
  Frameworks: PyTorch, DeepSpeed, Ray, vLLM, HuggingFace toolkit

Language Skills

- **Mandarin**: Native
- **Cantonese**: Intermediate
- **English**: Fluent (IELTS 7.5, Speaking 7.0)