Jingwen Gu

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I am passionate about reinforcement learning, robotics, and natural language processing, and I aim to help develop the next generation of RL algorithms to further the horizon of intelligence.

EDUCATION

Cornell University | Computer Science + Math + Architecture   Expected Graduation: May 2026

- <u>Current GPA</u>: 4.066/4.0
- <u>Dean's List</u>: FA21, SP22, FA22, SP23, FA23, SP24, FA24
- <u>Related Coursework</u>: CS6789-Foundations of RL **(A+)**; CS4756-Robot Learning **(A+)**; CS4780-Intro to ML **(A+)**, and many more.

PUBLICATIONS

- Jiaru Zou*, Ling Yang*, **Jingwen Gu*** (equal contribution), Jiahao Qiu, Ke Shen, Jingrui He, Mengdi Wang. <u>ReasonFlux-PRM: Trajectory-Aware PRMs for Long Chain-of-Thought Reasoning in LLMs</u>. Under review.
- Bradley Guo, **Jingwen Gu**, Jin Peng Zhou, Wen Sun. <u>Learning to Self-Correct through Chain-of-Thought Verification</u>. ICML 2025, 2nd Workshop on Test-Time Adaptation: Putting Updates to the Test (PUT)
- Jin Peng Zhou, Katie Z Luo, **Jingwen Gu**, Jason Yuan, Kilian Q. Weinberger, Wen Sun. <u>Orchestrating LLMs with Different Personalizations</u>. arXiv preprint (arXiv:2407.04181).
- **Jingwen Gu**, Timur Dogan. <u>Virtual Horizon Method: Fast Shading Calculations for UBEM using Lidar Data Rasterization</u>. IBPSA Building Simulation 2025.

EXPERIENCE

Research Intern | WEIRD Lab, Univeristy of Washington | Seattle, WA   June 2025 – Aug 2025

- Undertook reinforcement learning and robotics research under Professor Abhishek Gupta.
- Extended in-context reinforcement learning methods to robotics tasks and sim-to-real settings.

Chief Enginer & Co-founder | Dereka AI | Seattle, WA   June 2024 - Present

- Implemented quantization + pruning + knowledge distillations for LM compression.
- Able to compress model file size and runtime memory footprint 10 times while retaining performance and inference latency.
- Building an MVP to create a edge-device chatbot distilled from 7B models that acts as a dungeon master.

Research Associate | Cornell Computing and Information Science | Ithaca, NY   January 2024 - Present

- Undertook Reinforcement Learning research under Professor Wen Sun.
- Finetuned and aligned multi-objective 7B language models using PPO.
- Analyzed the performance difference between different Multi-objective Reinforcement Learning (MORL) methods.

Research Associate | Cornell Environmental Systems Lab | Ithaca, NY   August 2023 - Present

- Undertook Computer Graphics research under Professor Timur Dogan.
- Developed fast LiDAR-based raytracing methods for urban topographies.
- Built application using C#; interfaced with Vulkan and OpenGL.**Computer-Aided Architectural Design Intern | Archi-Union Architects | Shanghai, China**   May 2023 – July 2023
- Mentored by lead architects Philip F. Yuan and Weizhe Gao.
- Produced Grasshopper-based parametric design scripts for sun-shading materials.
- Contributed design schemes of Sichuan Digital Rural Achievements Exhibition Center and the SUSAS Gallery.
- Produced renderings and participated in the design development of the CSCEC Headquarters Office.

HONORS

Second Place | Barbara G. Laurie Student Design Competition   October 2022

Outstanding Winner | International Mathematical Modelling Challenge (IMMC), Greater China Region   March 2020

Finalist | Mathematical Contest in Modelling (MCM/ICM)   February 2020

SKILLS

Programming Languages: Python (Proficient) | Java (Proficient) | C# (Proficient) | C/C++ (Intermediate)

Frameworks/Tools: PyTorch | NumPy | Pandas | Transformers | OpenGL | Vulkan | LaTeX

Languages: English (fluent) | Mandarin (native)