Jingcheng Liang

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Education

University of Minnesota, Twin Cities — Minneapolis, MN, USA
Bachelor of Arts in Computer Science — *Sep. 2024 – Dec. 2026*
GPA: 3.96/4.0; Major GPA: 4.0/4.0

South China Normal University — Guangzhou, Guangdong, China
Bachelor of Arts in Economics (Transferred Out) — *Sep. 2022 – Dec. 2023*

Research Interests

Natural Language Processing, Augmented LLMs, Data-Centric AI, AI Alignment, Synthetic Data, Human-AI Interaction

Experience

Undergraduate NLP Research Assistant — Dec. 2025 – Present
Advisor: Prof. Dongyeop Kang — *University of Minnesota, Twin Cities*

Project: Abstain-R1 — *Dec. 2025 – Feb. 2026*

- Built a cold start SFT training pipeline with curated Abstain-CoT and Abstain-Test span multiple domains.
- Proposed a GRPO-based RLVR framework via Verl that jointly optimizes abstention correctness and clarification quality for unanswerable queries, while ensuring high accuracy on answerable queries.
- Achieved **+58.7%** correct refusal and **+54.5%** correct clarification improvement over Qwen2.5-3B baseline.

Project: User-Aware AI — *Feb. 2026 – Present*

- Designing a user-aware AI framework that models user context and state to enable more personalized assistance.

Undergraduate ML4Bio Research Assistant — May. 2025 – Sep. 2025
Advisor: Prof. Chad Myers — *University of Minnesota, Twin Cities*

- Designed dynamic LD (linkage disequilibrium)-based windowing strategies to adaptively capture gene-SNP boundaries, enhancing biological interpretability compared to fixed windows.
- Employed MAF (minor allele frequency)-weighted PCA to optimize latent dimensions for reliable gene representations.
- Developed a multi-task supervised autoencoder integrating genotype reconstruction with phenotype prediction, generating interpretable gene-level embeddings that support downstream tasks such as disease risk prediction and patient stratification.

Undergraduate Teaching Assistant — Sep. 2025 – Dec. 2025
CSCI 3003 & CSCI 5465 — *University of Minnesota, Twin Cities*

- Mentored 80+ undergraduate and graduate students (biology backgrounds) in developing programming foundations.
- Assisted in lab instruction and feedback, enabling students to apply coding to real-world biological datasets.

Preprints & Publications

Abstain-R1: Calibrated Abstention and Post-Refusal Clarification via Verifiable RL
Haotian Zhai*, Jingcheng Liang*, Dongyeop Kang
In Findings of the Association for Computational Linguistics: ACL 2026
* These authors contributed equally.

Awards & Honors

Dean's List — 2024 Fall – Present
University of Minnesota, Twin Cities

Dean's Research Award — 2025 Spring
University of Minnesota, Twin Cities

Skills

Languages: Java, Python, C/C++, R, Golang, SQL, HTML/CSS, TypeScript, OCaml
Frameworks & Tools: PyTorch, Hugging Face, vLLM, Verl, SGLang, Docker