Shang Zhou

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EDUCATION

University of California, San Diego — San Diego, CA
Ph.D. in Computer Science — Sep 2025 – Jun 2029 (Expected)
Advisor: Jingbo Shang

University of California, San Diego — San Diego, CA
B.S. in Computer Science — Sep 2021 – Jun 2025
Advisor: Jingbo Shang

EXPERIENCE

Multi-Institutional Research — Remote
Research Assistant — Mar 2025 – Present
- Co-led a team of 20 researchers from NYU, Princeton, UCSD, and UW to benchmark LLMs on ICPC problems.
- Quantified the major gap to Grandmasters: LLMs score 0% on hard problems and fail observation-heavy problems.

CMU Li Lab — Pittsburgh, PA
Research Assistant — Jul 2024 – Oct 2024
- Pioneered a mixed-allocation strategy for LLM inference, formulating sample distribution as a learning problem.
- Developed OSCA algorithm, achieving superior accuracy with 128x less compute on code-gen and 25x on reasoning.

UCSD Shang Data Lab — San Diego, CA
Research Assistant — Nov 2023 – Feb 2024
- Pioneered a novel evaluation framework using GPT-4 and an Elo rating system for LLM attribute control.
- Quantified control calibration and consistency, evaluating prompting and RepE methods across 5 attributes.

UCSD Competitive Programming Club — San Diego, CA
President & ICPC Team Coach — Jul 2024 – Present
- Coached UCSD's ICPC teams, with the top team achieving 2nd Place in the SoCal Regional and 21st Place in NAC.
- Designed 3 team selection, 3 SoCal Regional, and 20+ NAC practice contests, boosting team performance.

Codeforces — Remote
Problem Setter — Jan 2021 – Jul 2024
- Authored and prepared a Codeforces Div $1+2$ contest for over 25,000 participants as the 18th independent setter.
- Ranked among the Top 100 contributors on Codeforces for high upvotes on contest problems and tutorials.

HONORS AND AWARDS

22nd Place, ICPC World Finals	2023
5th Place, ICPC North America Championship	2023, 2024
Champion, ICPC North America West Division	2023
Champion, ICPC NSA Challenge	2024
8th Place, USACO Open Contest, Platinum Division	2020
International Grandmaster, Codeforces	2022
3rd Place, S.-T. Yau High School Science Award (Mathematics)	2020
Featured in *MIT Technology Review*, for work on LiveCodeBench Pro	2025
7 Dan, American Go Association	2022
Champion, North American Ing Go Cup	2024
Champion, StarCraft II Grandmaster Tournament	2020
Rank 1 Legend, Hearthstone Standard Ladder	2018

Publications

- **LiveCodeBench Pro: How Do Olympiad Medalists Judge LLMs in Competitive Programming?**
  Zihan Zheng[*], Zerui Cheng[*], Zeyu Shen[*], **Shang Zhou**[*], Kaiyuan Liu[*], Hansen He[*], Dongruixuan Li, Stanley Wei, Hangyi Hao, Jianzhu Yao, Peiyao Sheng, Zixuan Wang, Wenhao Chai, Aleksandra Korolova, Peter Henderson, Sanjeev Arora, Pramod Viswanath, Jingbo Shang, Saining Xie
  Under review at *Conference on Neural Information Processing Systems* (**NeurIPS**), 2025

- **Scaling LLM Inference with Optimized Sample Compute Allocation**
  Kexun Zhang[*], **Shang Zhou**[*], Danqing Wang, William Yang Wang, Lei Li
  Annual Conference of the North American Chapter of the Association for Computational Linguistics (**NAACL**), 2025

- **Evaluating the Smooth Control of Attribute Intensity in Text Generation with LLMs**
  Shang Zhou[*], Feng Yao[*], Chengyu Dong, Zihan Wang, Jingbo Shang
  Findings of the Association for Computational Linguistics (**ACL**), 2024