# 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

B.S. in Computer Science Sep 2021 – Jun 2025

Advisor: Jingbo Shang

## EXPERIENCE

#### Multi-Institutional Research

Remote

Research Assistant

Mar 2025 – Present

San Diego, CA

- 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

2023
2023, 2024
2023
2024
2020
2022
2020
2025
2022
2024
2020
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