Zerui Cheng

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Education

Princeton University, Dept of Electrical and Computer Engineering

Princeton, NJ, United States

Ph.D. Candidate, GPA: 4.00/4.00 Aug 2023 – Jul 2028 (expected)

O Research focus: Large language models, AI evaluation, Blockchains

O Advisor: Prof. Pramod Viswanath

Tsinghua University, the Institute for Interdisciplinary Information Sciences

Beijing, China

B.Eng. in Computer Science (Honors), GPA: 3.91/4.00

Aug 2019 – Jun 2023

- o "Yao Class" talent program (founded by Turing Award winner Andrew C. Yao), graduated summa cum laude
- o "Yao Award" recipient (most prestigious honor, top 10% of Yao Class)
- Excellent diploma thesis award winner (top 5% of Yao Class); Thesis Advisor: Prof. Zhixuan Fang
- O Visiting student researcher at Duke University (2022), Advisor: Prof. Fan Zhang
- O Visiting student researcher at the University of California, Berkeley (2022), Advisor: Prof. Dawn Song

Selected Publications

For most recent updates, the full publication list is available at: Google Scholar 2025:

LiveCodeBench Pro [Project Page]

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, and Saining Xie. "LiveCodeBench Pro: How Do Olympiad Medalists Judge LLMs in Competitive Programming?" (2025).

- o Jun 24, 2025: Featured in MIT Technology Review.
- o Aug 4, 2025: Invited talk at OpenAGI Symposium at the University of California, Berkeley
- Aug 15, 2025: Invited talk at "AI4Science x AI Security Community" hosted by alphaXiv

SPIN-Bench [Project Page]

Jianzhu Yao*, Kevin Wang*, Ryan Hsieh, Haisu Zhou, Tianqing Zou, **Zerui Cheng**, Zhangyang Wang, and Pramod Viswanath. "Spin-bench: How well do Ilms plan strategically and reason socially?" [COLM 2025]

- Zerui Cheng*, Stella Wohnig*, Ruchika Gupta*, Samiul Alam*, Tassallah Abdullahi, João Alves Ribeiro, Christiana Nielsen-Garcia, Saif Mir, Siran Li, Jason Orender, Seyed Ali Bahrainian, Daniel Kirste, Aaron Gokaslan, Carsten Eickhoff, Pramod Viswanath, and Ruben Wolff. "Position: Benchmarking is Broken - Don't Let Al Be Its Own Judge" (2025).
- O Long Phan, ..., Lennart Finke, Zerui Cheng, Jennifer Zampese, ... et al. "Humanity's Last Exam" (2025).

2024:

OML: Open, Monetizable, and Loyal AI [Research Page]

Zerui Cheng, Edoardo Contente, Ben Finch, Oleg Golev, Jonathan Hayase, Andrew Miller, Niusha Moshrefi, Anshul Nasery, Sandeep Nailwal, Sewoong Oh, Himanshu Tyagi, and Pramod Viswanath. "Reclaiming "Open Al" – Al Model Serving Can Be Open Access, Yet Monetizable and Loyal" (2024).

- o Sep 12, 2024: Initial release as the whitepaper of AI startup Sentient Foundation
- o Apr 11, 2025: Poster presentation at Citadel Securities PhD Summit 2025 in Miami
- o Jun 16, 2025: Invited talk at Prof. Matthias Bethge's research group at the University of Tübingen

2023:

- O Suma Bhat, Canhui Chen, **Zerui Cheng**, Zhixuan Fang, Ashwin Hebbar, Sreeram Kannan, Ranvir Rana, Peiyao Sheng, Himanshu Tyagi, Pramod Viswanath, and Xuechao Wang. "Sakshi: Decentralized Al Platforms" (2023).
- O Canhui Chen*, **Zerui Cheng***, Shutong Qu, and Zhixuan Fang. "Crowdsourcing Work as Mining: A Decentralized Computation and Storage Paradigm". [APNET 2023]

2022:

• Tiancheng Xie, Jiaheng Zhang, **Zerui Cheng**, Fan Zhang, Yupeng Zhang, Yongzheng Jia, Dan Boneh, and Dawn Song. "zkBridge: Trustless Cross-chain Bridges Made Practical". [ACM CCS 2022]

Talks and Presentations

Invited talk at "AI4Science x AI Security Community" hosted by alphaXiv

Online

1-hour talk on LiveCodebench Pro (w/ Peiyao Sheng).

Aug 2025

Invited talk at OpenAGI Symposium hosted by Sentient 20-min talk on LiveCodebench Pro at UC Berkeley.

Berkeley, CA Aug 2025

Invited talk at the University of Tübingen hosted by Prof. Matthias Bethge

Aug 2023

1-hr talk on OML.

Online
Jun 2025

Ph.D. General Exam Research Seminar

Princeton, NJ

1-hr talk on OML. Committee members: Prof. Pramod Viswanath, Prof. Sanjeev Kulkarni, Prof. Chi Jin

Apr 2025

Poster presentation at Citadel Securities PhD Summit 2-hr poster session with top PhD students and quantitative researchers at CitSec on OML.

Miami, FL Apr 2025

Poster presentation at Princeton DeCenter Spring Conference

Princeton, NJ

1-hr poster session on SCTest: Automated smart contract generation with AI (w/ group members).

Apr 2024

Invited talk at Yao Seminar #48

Beijing, China

1-hr talk on zkBridge: trustless cross-chain bridges by zero-knowledge proofs.

Jun 2023

Presentation at IC3 Blockchain Summer Camp 2022

Ithaca, NY

10-min lightning session on multi-agent selfish mining (w/ Shutong Qu) at Cornell University.

Nov 2022

Professional Experience

ByteDance Seed Team

San Jose, CA

Student Researcher (Part-time)

Sep 2025 – Present

Research on large language models, evaluation, and code generation systems.

Mentor: Jiashuo Liu

Kite Al

Remote

Whitepaper and Research Collaborator

Feb 2025 - Present

Research on Proof of Attributed Intelligence for Al-native blockchain operations. Author of Kite Al whitepaper.

Mentor: Scott Shi

JQ Investments

Shanghai, China

Quantitative Research Intern Aug 2024 – Sep 2024

Developed alpha strategies through large-scale financial data analysis.

Mentor: Kevin Zhang

Sentient Foundation Princeton, NJ

AI Fellow

May 2024 – Aug 2024

Jul 2021 – Aug 2021

Led formulation and development of OML framework for AI intellectual property protection using cryptographic primitives. Lead author of Sentient whitepaper "OML – Unleashing the Era of AI Entrepreneurship".

Mentor: Prof. Pramod Viswanath, Prof. Sewoong Oh

PolyHedra Network Remote

Research Intern Jul 2022 – Dec 2022

Implemented blockchain cross-chain bridges using zero-knowledge proofs. Author of PolyHedra whitepaper (zkBridge).

Mentor: Tiancheng Xie

Shanghai Qizhi Institute Shanghai, China

Research Intern
Worked on modeling and queueing theory analysis of blockchain transaction waiting time.

Mentor: Zhixuan Fang

Scholarships and Academic Awards

First-year Ph.D. Fellowship **Princeton University**

Aug 2023

Departmental summa cum laude Tsinghua University

Top 20% in Yao Class Jun 2023

Tsinghua University **Excellent Diploma Thesis Award** Jun 2023

Top 5% in Yao Class

Yao Award (Bronze Medal) Tsinghua University Top 10% in Yao Class Sep 2022

Most prestigious honor in Yao Class, awarded by Dean Andrew Chi-Chih Yao

Tsinghua University Scholarship for Comprehensive Excellence

2022

Scholarship for Excellence in Academic Achievements Tsinghua University

Scholarship for Excellence in Scientific and Technological Innovation Tsinghua University

2021

Scholarship for Excellence in Social Activities and Voluntary Work Tsinghua University

Xuetang Scholarship Tsinghua University 2019-2023 Full tuition exemption

Competitive Programming Achievements

Career Achievement.....

May 2024: Competitive Programming Hall of Fame Member [Hall of Fame Personal Page]

Recent Highlights in North America.....

May 2025: 26th Place, ICPC North America Championship (NAC 2025)

Nov 2024: 4th Place, ICPC Greater New York Regional (qualified for NAC 2025 representing Princeton)

Nov 2024: 93rd worldwide (top 0.4%), Meta HackerCup

May 2024: 22nd Place, ICPC North America Championship (\$3000 prize for first solution award)

Nov 2023: 3rd Place, ICPC Greater New York Regional (qualified for NAC 2024 representing Princeton)

University Competitions.

Dec 2024: 2nd Place, Princeton Computer Science Contest (Princeton COSCON 2024)

May 2024: Finalist (Top 16 in USA), MIT Informatics Tournament Spring Invitational (MITIT 2024)

Dec 2023: 1st Place, Princeton Computer Science Contest (Princeton COSCON 2023)

Earlier Achievements in East Asia.....

2020-2022: Multiple Gold/Silver Medals in ICPC/CCPC regional contests and continental finals.

ICPC: Gold (Yinchuan Regional 2021), Silver (East-Asia Continental Final 2021);

CCPC: Gold (Changchun 2020, Harbin 2021), Silver (Mianyang 2022);

2019: 2nd Place, LeetCode Cup National Programming Contest

2017-2018: Silver Medalist (2x), Chinese National Olympiad in Informatics (NOI).

Problem Setting.....

Jul 2021: Problem setter of Chinese National Olympiad in Informatics (NOI 2021 Day 2 Problem 1).

2021-2022: Problem setter and validator of Tsinghua University Programming Contest (THUPC 2021,2022).

Nov 2017: Lead author of Codeforces Round 447.

Other Honors

Aug 2022: 1st Place, IC3 Blockchain Summer Camp Hackathon 2022

Dec 2020: First Prize, China Collegiate Mathematics Contest

Teaching and Service

Princeton COS/ECE 470: Principles of Blockchains Head Teaching Assistant Sep 2024 - Jan 2025 Redesigned final project combining blockchain and AI, receiving exceptional student feedback O Led 3 hands-on in-class labs and coordinated grading for 80+ students O Nominated for Princeton E-Council Teaching Awards (Fall 2024) IEEE/ACM Transactions on Networking (IEEE ToN) 2025 Reviewer IEEE Journal on Selected Areas in Communications (IEEE JSAC) Reviewer 2022 China Computer Federation (CCF) 2021 Student Expert and Problem Setter of National Olympiad in Informatics of China (NOI 2021) Authored problem ("Quantum Communication", Day 2 Problem 1) voted "best in contest" Tsinghua University Algorithm Association Core contributor. 2020-22 Yao Class Youth League Deputy Secretary. 2021-22 Yao Class Students' Congress President (2022-23); Vice president (2021-22); Member (2020-21) 2020-23 **TV** Appearances TV Show "Super Brain Season 10" JSBC (Jiangsu Satellite TV)

Languages

Participant

Chinese (Mandarin): Native

English: Fluent (TOEFL iBT: 111/120)

2023