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)*

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

○ 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*

○ "Yao Class" talent program (founded by Turing Award winner Andrew C. Yao), graduated *summa cum laude*

○ "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

○ Visiting student researcher at Duke University (2022), Advisor: Prof. Fan Zhang

○ 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).

  ○ *Jun 24, 2025: Featured in MIT Technology Review.*

  ○ *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 llms 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 AI Be Its Own Judge" (2025).

○ 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 AI" – AI Model Serving Can Be Open Access, Yet Monetizable and Loyal" (2024).

  ○ *Sep 12, 2024: Initial release as the whitepaper of AI startup Sentient Foundation*

  ○ *Apr 11, 2025: Poster presentation at Citadel Securities PhD Summit 2025 in Miami*

  ○ *Jun 16, 2025: Invited talk at Prof. Matthias Bethge's research group at the University of Tübingen*

2023:

○ 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 AI Platforms" (2023).

○ 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	**Berkeley, CA**
20-min talk on LiveCodebench Pro at UC Berkeley.	*Aug 2025*
Invited talk at the University of Tübingen hosted by Prof. Matthias Bethge	**Online**
1-hr talk on OML.	*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	**Miami, FL**
2-hr poster session with top PhD students and quantitative researchers at CitSec on OML.	*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 AI	**Remote**
Whitepaper and Research Collaborator	*Feb 2025 – Present*
Research on Proof of Attributed Intelligence for AI-native blockchain operations. Author of Kite AI 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*
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	*Jul 2021 – Aug 2021*
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*
Excellent Diploma Thesis Award	**Tsinghua University**
Top 5% in Yao Class	*Jun 2023*
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	
Scholarship for Comprehensive Excellence	**Tsinghua University**
	2022
Scholarship for Excellence in Academic Achievements	**Tsinghua University**
	2021
Scholarship for Excellence in Scientific and Technological Innovation	**Tsinghua University**
	2021
Scholarship for Excellence in Social Activities and Voluntary Work	**Tsinghua University**
	2020
Xuetang Scholarship	**Tsinghua University**
Full tuition exemption	*2019-2023*

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

○ Led 3 hands-on in-class labs and coordinated grading for 80+ students

○ Nominated for Princeton E-Council Teaching Awards (Fall 2024)

IEEE/ACM Transactions on Networking (IEEE ToN)
Reviewer   *2025*

IEEE Journal on Selected Areas in Communications (IEEE JSAC)
Reviewer   *2022*

China Computer Federation (CCF)
Student Expert and Problem Setter of National Olympiad in Informatics of China (NOI 2021)   *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*

Media Coverage

TV Show "Super Brain Season 10"   **Jiangsu Channel**
Participant   *2023*

Languages

Chinese (Mandarin): Native
English: Fluent (TOEFL iBT: 111/120)