

Zerui Cheng (程泽瑞)

PERSONAL DETAILS

Date of Birth: Jul 12, 2001

Place of Birth: Wuhu, Anhui Province, China ([learn more about my hometown](#))

Personal Website: <https://zerui-cheng.com>

Phone Number: +86-17855329418

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CURRENT STUDY

Institution: Tsinghua University

Major: Computer Science

Department: Institute for Interdisciplinary Information Sciences ([learn more](#))

Class: Yao Class ([an undergraduate honor program](#) directed by [Andrew Yao](#))

Current Study Level: Rising Senior-year Undergraduate

Major: Computer Science

Current Cumulative Grade Point Average: 3.9/4.0

RESEARCH INTERESTS

Main Interests: Blockchain (especially mechanism and incentive design)

Others: Algorithms, Game Theory, Privacy and Security etc.

PROJECTS

Game Theoretical Analysis of Selfish Mining in Blockchain ([link](#))

Oct 2020 - May 2021

Students' Research Training Project, advised by Prof. Zhixuan Fang

A Survey on Blockchain System and Related Cryptographic Methods ([link](#))

Apr 2021 - June 2021

Project of course <Fundamentals of Crypto> , instructed by Prof. Yilei Chen

**An Algorithm for Graph Matching with Restrictions on Edge Weights,
Based on Number Theory, Linear Algebra and Randomization ([link](#))**

May 2021 - June 2021

Project of course <Numerical Analysis> , instructed by Prof. Wenjian Yu

Crowdsourcing Work as Mining: A Decentralized Computing Paradigm ([link](#))

June 2021 - Feb 2022

Advised by Prof. Zhixuan Fang, paper in submission now

zkBridge: Trustless Cross-chain Bridges Made Practical ([link](#))

Feb 2022 till now

*Advised by Prof. Fan Zhang and Prof. Dawn Song,
mentored by Tiancheng Xie, paper in submission now*

RESEARCH INTERNSHIP

Undergraduate Research Intern in Shanghai Qizhi Institute

Themed "PoUW on Public Chain" Advised by [Prof. Zhixuan Fang](#)

Jul 2021 - Aug 2021

Research Intern at Duke University

Themed "Side-contract on Ethereum" Advised by [Prof. Fan Zhang](#)

Feb 2022 till now

Research Intern at the University of California, Berkeley

Themed "Design and Implementation of zk-Bridge" Advised by [Prof. Dawn Song](#)

Feb 2022 till now

HONORS / AWARDS

Competitive Programming Contests

Silver Medal in National Olympiad in Informatics

Jul 2018

Second Place in “Leetcode Cup” National Programming Contest	Oct 2019
Gold Award in CCPC (Changchun Site, 8th place)	Nov 2020
Silver Award in ICPC (East Continental Final)	Apr 2021
Gold Award in ICPC (Yinchuan Site, 5th place)	May 2021
Gold Award in CCPC (Harbin Site, 7th place)	Nov 2021
155th worldwide (out of 32702) in Google CodeJam 2022	June 2022

Mathematics Competitions

First Prize in 12th Chinese National Maths Competition	Dec 2020
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Scholarships

Scholarship for Excellence in Voluntary Work and Social Activities	Oct 2020
Scholarship for Excellence in Academic Achievements	Oct 2021
Scholarship for Excellence in Scientific and Technological Innovation	Oct 2021
Scholarship of Tuition Fee Exemption (Xuetang Program)	Annual, From 2019

SOCIAL WORK

Vice President, IIS Students’ Union	From Oct 2021
Deputy Secretary, IIS Youth League Committee	Oct 2021 - Feb 2022
League Branch Secretary of Yao Class 92	From Sep 2021
Member, Contest Staff Department of THU Algorithm Association	From Jul 2020
Member, Organization Department of IIS Students’ Union	Aug 2020 - Sep 2021

REMARKABLE ACTIVITIES

Volunteer of the 110th anniversary of Tsinghua University	Apr 2021
Problem Setter of NOI 2021 (National Olympiad in Informatics)	Jul 2021

SKILLS

Programming Skills: C/C++ (proficient), Python, Solidity, Golang

Language Skills: Chinese (native) , English (111pts in TOEFL, R30, L27, S24, W30)

(Last Updated: Aug 2,2022)