

# Chengrui Fang

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Interests: AI, Blockchain

## EDUCATION BACKGROUND

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### • Zhejiang University

Zhejiang, China

*Bachelor of Engineering (Honors) in Information Security*

*Sep. 2020 – Expected Jun. 2024*

- **Turing Class:** First honors class [Chu Kochen Honors College](#)
- **Overall GPA: 3.92/4.00** 89.38/100 Major GPA: 3.95/4.00
- **Ranking:** 1/31 Top **2%**
- **Relevant Courses:** AI Security (96) System Security (96) Computer System I &II (96) Machine Learning (94)
- **Minor:** Intensive Training Honors Program of Innovation and Entrepreneurship (ITP) at [Chu Kochen Honors College](#) (Top 40/5400)

## PUBLICATION

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[1] Sarisht Wadhwa, **Chengrui Fang**, Luca Zanolini, Aditya Asgaonkar, Francesco D'Amato, Fan Zhang, Kartik Nayak: ***Data Independent Order Policy Enforcement: Limitations and Solutions***, in submission to USENIX Security' 24.

## RESEARCH EXPERIENCE

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### • Implementation and Evaluation of AnimaguSwap

New Haven, USA

*Research Assistant Intern*

*Jun. 2023 - Oct. 2023*

*Advisor: Prof. Fan Zhang, Assistant Professor at Yale University*

- Identified the sandwich attack problem in traditional AMMs like Uniswap. Introduced AnimaguSwap, a protocol designed to counteract these attacks by splitting transaction information and building distrust between parties using rational binding.
- Independently conducted a simulation-based implementation, smart contract optimizations and in-depth gas fee performance evaluation of AnimaguSwap, using the Hardhat framework. Successfully reduced overall gas fees from an initial 5x to **2.3x** of the baseline, significantly improving protocol efficiency.

### • A Method of Constructing Non-fungible Tokens from Physical Artworks

Zhejiang, China

*Research Assistant Intern*

*Jun. 2022 - Jan. 2023*

*Advisor: Prof. Bingsheng Zhang, ZJU100 Professor at Zhejiang University*

- Utilized the SIFT algorithm, Gabor filter, and Fuzzy extractor for precise feature extraction from artworks. Developed smart contracts in Solidity to construct Non-fungible Tokens (NFTs) from extracted artwork features for blockchain-based verification. Conducted extensive experiments on various mediums, including plain paper and ink wash paintings, to verify the whole system.

## INDUSTRIAL EXPERIENCE

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### • Prompts Lab [\[Github\]](#)

Zhejiang, China

*Founder*

*Jun. 2023 - Present*

- **Prompts Lego:** Led and launched 'Prompts Lego', **a no-code tool specifically designed to help users write AI prompts faster and better**. Completed the front-end development of Prompts Lego using the Create React App framework in a 24-hour hackathon. Designed the product's features and interaction logic. Secured the **highest prize** among 32 teams, being the only undergraduate team.
- Reconstructed it using the Vite framework, significantly enhancing response and rendering speeds. Launched an alpha test that successfully attracted over **1000** users. Won the **championship** at the 2023 National University Student Hackathon. Accumulated total \$5,000 in prize.
- **AI-Powered 'Who is the spy':** Innovated on Chinese party games 'Who is the spy' by integrating AI to generate custom game words, enhancing player experience. Conducted the front-end interaction design, implementation of the game and a well-designed AI prompt to optimize the game's word generation within **48 hours**. Conquered the Alibaba Cloud YunXi Conference 2023 Hackathon the **Best Zero to One Award** as the only undergraduate team among 16 startup teams.

- **PLANET** [[Github](#)] [[Demo](#)]

Founder

Zhejiang, China  
Sep. 2022 - May. 2023

- Led and launched PLANET, an innovative blockchain-based interactive desktop wallpaper game. Utilized Solidity to write smart contracts, enabling the integration of in-game elements onto the blockchain.
- Secured 1st prize in Tsinghua Blockchain Hackathon and Alibaba's Ant Chain Hackathon (**1/100+**), plus a \$10k Alibaba cloud sponsorship at BNB Chain Hackathon. Accumulated a total of \$5,000 in prize money. Invited as a guest speaker at the Alibaba Yunxi Conference 2022.

- **NFTGo** [[Website](#)]

Software Engineer and Product Intern

Zhejiang, China  
Mar. 2022 - Sep. 2022

Successfully completed Pre-A funding round in February 2022, achieving a valuation of \$45 million.

- Designed and implemented a Twitter plugin that displays various data related to NFT (Non-fungible Tokens) avatars through user profiles, utilizing React for front-end development.
- Independently developed Python scripts for tracking new NFT projects, cataloging over 500 projects, and created a dashboard for data visualization, aiding the investment team in decision-making.

## ACADEMIC CONTEST

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- **Privacy-Preserving Lending Credit Security Assessment System**

Team Leader

Zhejiang, China  
Apr. 2021 - Jun. 2021

Advisor: Prof. Bingsheng Zhang, ZJU100 Professor at Zhejiang University

- Led a team to build a privacy-preserving lending credit security assessment system using secure multiparty computation algorithms based on decision trees and semi-trusted hardware in the National College Student Information Security Competition, utilizing C++ for development. Achieved a 'usable but invisible' effect to protect user information and privacy.

## LEADERSHIP AND DIVERSITY

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- **ZJU Blockchain Association** [[Twitter](#)][[Linkedin](#)]

President

Zhejiang, China  
Jul. 2023 - Present

- Led the association in organizing the ETH Hangzhou Hackathon, ZJUBCA Crypto VC Course and other activities, securing \$30,000 in sponsorship from notable entities like ETH Foundation, Scroll, Mask Network..... Led to a community growth, exceeding 1,000 members and engaging over 5,000 participants. Increased our Twitter followers 10x, from 100 to 1,000, boosting our international impact.

- **Influencer and Creator** [[Bilibili](#)]

- Established a personal channel on Bilibili (Chinese Youtube) and GitHub, sharing insights into cutting-edge technology, entrepreneurship, career planning, and learning experiences. Achieved 800,000 video views and 20,000 followers. Developed an AI knowledge document with over 200,000 total reads.
- Invited by several well-known tech media to share about AI, and the relevant articles have reached 50,000 views.

- **Hackathon Hunter:** Participated in over 10 hackathons, including international events like ETH NYC, ETH Online, ETH Hangzhou, ETH HK....., building over 10 amazing projects and accumulating over \$50,000 in prize money.
- **Artist:** Hip-hop aficionado, member of school's hip-hop club, member of campus streetwear brand called 'BUER', a name derived from a lyric in our school's anthem that signifies 'dialectical unity relationship' in Chinese.
- **Basketball Player:** Engaged in basketball since childhood, playing as the point guard for my college basketball team.
- **Volunteer Teacher:** Collaborated with students from China's top four universities to participate in a teaching volunteer program at a primary school in Jiuquan, China. Photographed, produced documentaries, and taught film appreciation classes. Recognized as an 'Outstanding Team' in Zhejiang University 2021 (Top 10).

## AWARDS AND HONORS

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First-Class Scholarship for Outstanding Students (2% Students Awarded), ZJU

Oct. 2023/2022/2021

Top 10 Outstanding Students in the College of Computer Science & Technology (**10/1500**), ZJU

Jun. 2023

Zhejiang Provincial Government Scholarship (3% Students Awarded), ZJU

Oct. 2023/2022

Top 10 Outstanding Students in the College of Engineering YunFeng(**10/1500**), ZJU

Jun. 2021