

# HAOQIAN ZHANG

## Curriculum Vitae

Swiss Federal Institute of Technology Lausanne  
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### Educational Background

- 2019–Now **Swiss Federal Institute of Technology Lausanne**, Switzerland  
Program: Doctoral in Computer and Communication Sciences, School of Computer and Communication Sciences  
Supervisor: Professor Bryan Ford
- 2017–2019 **Hong Kong University of Science and Technology**, Hong Kong  
Program: Master of Philosophy in Computer Science and Engineering, School of Engineering  
Supervisor: Professor Ke Yi
- 2013–2017 **Peking University**, Beijing, China  
Program: Bachelor of Computer Science, School of EECS
- 2016 **National Taiwan University**, Taipei, Taiwan  
Exchange College: Electrical Engineering and Computer Science

### Publications

- Haoqian Zhang, Michelle Yeo, Vero Estrada-GaliÁsanés, and Bryan Ford, *ZeroAuction: Zero-Deposit Sealed-bid Auction via Delayed Execution*, WTSC2024
- Haoqian Zhang, Louis-Henri Merino, Ziyang Qu, Mahsa Bastankhah, Vero Estrada-GaliÁsanés, and Bryan Ford, *F3B: A Low-Overhead Blockchain Architecture with Per-Transaction Front-Running Protection*, AFT2023
- Haoqian Zhang, Mahsa Bastankhah, Louis-Henri Merino, Vero Estrada-GaliÁsanés, and Bryan Ford, *Breaking Blockchain Rationality with Out-of-Band Collusion*, WTSC2023
- Haoqian Zhang, Louis-Henri Merino, Vero Estrada-GaliÁsanés, and Bryan Ford, *Flash Freezing Flash Boys: Countering Blockchain Front-Running*, DINPS2022
- Haoqian Zhang, Cristina Basescu, Bryan Ford, *Economic Principles of PoPCoin, a Democratic Time-based Cryptocurrency*, arXiv preprint, <https://arxiv.org/abs/2011.01712>
- Haoqian Zhang, Yaocheng Zhao, Abhishek Paryani, Ke Yi, *Infnote: A Decentralized Information Sharing Platform Based on Blockchain*, Master Thesis 2019, <https://arxiv.org/abs/2002.04533>

### Experience

- 2009–2014 **Tyvj**, *Founder*, an Online Judge Platform for algorithm problems and competitions.  
**Introduction:** In 2012, it had become one of the largest online judge systems for algorithm competition in China, having more than 40,000 users, 300,000 page views per day and more than 2000 algorithm challenges.
- 2017 **University of Oxford**, *Oxford Martin School, Institute of New Economic Thinking*, Internship.

**Topic:** Developed state of the art Economic Simulation for Bank of England and European Central Bank

**Supervisor:** Professor J. Doyne Farmer

2016–2017 **Peking University**, *School of EECS, Department of Computer Science, Microprocessor Research and Development Center*, Research Assistant.

**Topic:** Code Similarity Analysis Based on Control Flow Graph

**Supervisor:** Professor Xianhua Liu

2014–2016 **Peking University**, *School of EECS, Department of Computer Science, Artificial Intelligence Lab*, Research Assistant.

**Topic:** General Game Play, AI Battle Platform (Botzone.com) and Game Design

**Supervisor:** Professor Wenxin Li

2014 **Nation Olympiad in Informatics 2014**, *Shenzhen, China*, Technical Staff.

**Project:** Developing judge system and designing problems for the AI competition.

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## Teaching

2021-2023 **Decentralized Systems Engineering**, FALL 2021-2022, FALL 2022-2023, Swiss Federal Institute of Technology Lausanne, Teaching Assistant.

2017-2019 **ACM/ICPC Programming Team**, Hong Kong University of Science and Technology, Coach.

2018 **Honors Competitive Programming**, SPRING 2017-2018, Hong Kong University of Science and Technology, Teaching Assistant.

2017 **Compiler Lab (Honor Track)**, SPRING 2016-2017, Peking University, Teaching Assistant.

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## Awards

2019 PhD fellowships, EPFL

2019 Best Project Award, BETH: Blockchain School for Sustainability, ETH Zurich

2018 Best Paper Award, CONVR2018

2017,2018 Postgraduate Scholarship, HKUST

2014 Tung OOCCL Scholarship of Peking University

2012 China Team Selection Competition for International Olympiad in Informatics, Bronze Medal

2012 Asia-Pacific Informatics Olympiad (China Region), Silver Medal

2011 Asia-Pacific Informatics Olympiad (China Region), Bronze Medal

2012 National Olympiad in Informatics, Silver Medal

2011 National Olympiad in Informatics, Bronze Medal

2012 National Olympiad in Informatics, ShanXi Province, Fourth Place

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## Languages

Chinese: Native

English: Fluent

French: Basic

Programming Languages: Proficient