XINYU MAO

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Website: https://sparkmxy.github.io

RESEARCH INTEREST

I am broadly interested in theoretical computer science, especially in cryptography and computational complexity.

EDUCATION

University of Southern California	Aug. 2022 – Present
Ph.D. student in Computer Science	
Advisor: Prof. Jiapeng Zhang	Los Angeles, United States
Shanghai Jiao Tong University	Aug. 2018 – June 2022
Bachelor of Engineering in Computer Science	
A member of ACM Honor Class, Zhiyuan College	
Advisors: Prof. Yijia Chen and Prof. Yong Yu	
GPA: 3.96 / 4.3 | Ranking: 2 / 33	Shanghai, China

RESEARCH EXPERIENCE

University of Southern California	May 2021 - April 2022
Research Intern advised by Prof. Jiapeng Zhang	
Research Topic: foundations of cryptography.	
Shanghai Jiao Tong University	Sept. 2020 – Feb. 2021
Undergraduate Researcher advised By Prof. Shengli Liu	
Reseach Topic: public-key cryptography	

PUBLICATIONS

1. Xinyu Mao, Noam Mazor, and Jiapeng Zhang. Non-adaptive universal one-way hash functions from arbitrary one-way functions. In *Advances in Cryptology – EUROCRYPT 2023: 42nd Annual International Conference on the Theory and Applications of Cryptographic Techniques, Lyon, France, April 23-27, 2023, Proceedings, Part IV*, page 502–531, Berlin, Heidelberg, 2023. Springer-Verlag

2. Mi-Ying Huang, Xinyu Mao, Guangxu Yang, and Jiapeng Zhang. Communication lower bounds of key-agreement protocols via density increment arguments. In Guy Rothblum and Hoeteck Wee, editors, *Theory of Cryptography*, pages 185–206, Cham, 2023. Springer Nature Switzerland

3. Xinyu Mao and Jiapeng Zhang. On the power of svd in the stochastic block model. NeurIPS 2023

HONORS AND AWARDS

Zhiyuan Outstanding Student Scholarship	2022
Shanghai Outstanding Graduate	2022
Foresight-Sequoia Scholarship	2021
70 winners in SJTU each year	
Huawei Scholarship	2020
14 winners at Zhiyuan College each year	
Zhiyuan Honorary Scholarship	2018, 2019, 2020
Top 5% in SJTU each year	

Bronze Medal   2017

The 34th China National Olympiad in Informatics (NOI)

TEACHING EXPERIENCE

Great Ideas in Computer Science   Fall 2019, Fall 2020, Fall 2021

Teaching Assistant

I led a TA team, and I was deeply involved in the course design.

I wrote an Enigma Simulator to facilitate teaching.   Shanghai Jiao Tong University

SKILLS

Programming: C++, Java, Python, JavaScript, Latex

Language: Chinese (native), English (TOEFL 105)