

XUANMING LIU

Yuquan Campus, Zhejiang Univerisity
Hangzhou, Zhejiang, China

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EDUCATION

Zhejiang University **Zhejiang, China**

Master of Science (M.Sc.) in Computer Science *Sept. 2022 - Expected March. 2025*
Advised by Prof. Xiaohu Yang

Bachelor of Engineering (B.E.) in Computer Science *Sept. 2018 - July. 2022*
GPA: 3.97/4.0

Minored in **Advanced Class of Engineering Education** at **Chu Kochen Honors College**,
a distinguished program selecting only 40 engineering students annually.

RESEARCH EXPERIENCE

Blockchain Research Center, Zhejiang University *Sept. 2022 - Expected March. 2025*
Advised by Prof. Xiaohu Yang on Privacy-Preserving Computation.

- Focusing primarily on designing efficient constructs for *zero-knowledge proofs* and related applications.

PUBLICATIONS

Scalable Collaborative zk-SNARK: Fully Distributed Proof Generation and Malicious Security [[pdf](#)] [[code](#)]

Xuanming Liu, Zhelei Zhou, Yinghao Wang, Bingsheng Zhang, Xiaohu Yang.
(Eprint Manuscript, 2024)

Crust: Verifiable and Efficient Private Information Retrieval With Sublinear Online Time [[pdf](#)]

Yinghao Wang, Xuanming Liu, Jiawen Zhang, Jian Liu, Xiaohu Yang.
(Eprint Manuscript, 2023)

Evaluate and Guard the Wisdom of Crowds: Zero Knowledge Proofs for Crowdsourcing Truth Inference [[pdf](#)] [[code](#)]

Xuanming Liu, Xinpeng Yang, Yinghao Wang, Xun Zhang, Xiaohu Yang.
(Arxiv Manuscript, 2023)

WORK EXPERIENCE

Bytedance Ltd. **Hangzhou, China**
Backend Development Engineer *March 2021 - July 2021*

- Engaged in backend development for a supply-chain management system, utilizing **Java**.

Hyperchain **Hangzhou, China**
Blockchain Engineer *August 2021 - January 2022*

- Contributed to the development of a WASM virtual machine for blockchain, employing **Go**.

Zecrey

Cryptography and Smart Contract Engineer

March 2022 - June 2022

- Participated in the creation of a privacy-preserving layer-2 solution for Ethereum.

TEACHING EXPERIENCE

Teaching Assistant, Blockchain and Digital Currency, Zhejiang University *2022 - 2024*

- Guided students in smart contract development with Solidity and decentralized Apps design.
- Comprehensive instructional materials are provided.

LEADERSHIP

- Vice-President of the **ZJU Internet Association (ZJUINA)**. *2022 - 2023*
- Core Member of the **ZJU Blockchain Association (ZJUBCA)**. *2023 - 2024*
- Core Contributor to the organizing of the **Ethereum Hangzhou Hackathon (ETH Hangzhou)**, a hackathon endorsed by the Ethereum Foundation. *2023*

SELECTED AWARDS

- **Finalist Prize**, Mathematical Contest in Modeling (MCM), 2021.
- Zhejiang Provincial Government Scholarship, 2019 - 2022.
- Outstanding Graduates of Zhejiang University, 2022.

SELECTED PROJECTS

Collaborative GKR [Github] *2023*

- A zero-knowledge proof system implemented in **Rust**.
- Developed a GKR-based Collaborative zk-SNARK featuring fully distributed proof generation.
- Surpassed the local Libra prover in efficiency, achieving lower communication and computational costs.

InsPilot [Github] *2023*

- Fullstack implementation for InsPilot: a multimodal creative stimulus system that aids designers by leveraging the capabilities of Large Language Models and StableDiffusion.

ZKTI [Github] *2023*

- Implemented a zero-knowledge truth inference system in **C++**.
- Created a framework to employ zero-knowledge proofs within crowdsourced truth inference, enabling verifiable data aggregation.

SiriusDB [Github] *2021*

- A distributed database system implemented in **Java**.
- Developed a prototype emphasizing availability and fault tolerance, utilizing Zookeeper.