

# Xiong Luoyuan (Alex)

Email: alex.xiong.tech@gmail.com / Phone: (+65) 9371 0529

## EDUCATION

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### Nanyang Technological University (NTU)

*School of Electrical and Electronic Engineering*

Singapore, SG

Aug 2015 - June 2019

- **Bachelor of Engineering** (specialization: Info-communications Engineering)
- **Honours (Highest Distinction)** (Expected)
- Sino-Singapore STEM Scholarship (SM2 Program Scholar)

## WORK EXPERIENCE

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### Kyber Network

*Blockchain Research Intern*

Singapore, SG

Nov 2017 - Aug 2018

- **Gormos:** Co-authored GORMOS, a novel protocol for high-performance decentralized exchanges without compromise on security or decentralization
- **Blockchain Scalability Advocate:** Conducted technical deep dives on major scalability solutions for permissionless blockchain, including Plasma and its variants, Sharding and State Channel

### National Cybersecurity R&D Lab

*Full-stack Developer Intern*

Singapore, SG

Aug 2017 - Dec 2017

- **Full-stack Web Development:** Architected, developed and deployed a web portal from scratch for collecting vulnerabilities and exploits, using *Django Framework* on *Nginx Server*

### ConsenSys LLC

*Blockchain Security Intern*

New York, NY

May 2017 - Oct 2017

- **Bytecode Verifier:** Developed an open-sourced command line tool, noticeably simplified the verification of actual compiled bytecode of smart contracts against that on Blockchain.
- **Smart Contract Audit:** Co-audited smart contracts in *Ox-Project* with ConsenSys Diligence team; Identified a potential exploit and proposed mitigation and testing scripts  
*Ox-Project* securely launched their token sales on 15th Aug, 2017, successfully raised 24 million USD worth of Ethereum

## LEADERSHIP

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### Blockchain at NTU

*President, Founder*

Singapore, SG

Oct 2017 - Present

- Bootstrapped the largest Blockchain student club in Singapore with 50+ active members and 10+ global partners including *Blockchain@Berkeley*, *EthGlobal* and *NUS Cryptal Centre*
- Co-designed and taught *Blockchain Fundamental* courses with 600+ accumulated attendees and online views

## PROJECTS & RESEARCH EXPERIENCE

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- **Channelized CoinShuffle++:** a novel coin shuffle protocol in generalized state channel framework to provide practical, scalable transaction privacy to Ethereum blockchain; used **TypeScript** and **Solidity**
- **Alexa Controlled Robotic Arm:** a self-assembled robotic arm controlled via Alexa Voice Assistant to play the sliding puzzle game; used **AWS**, **Alexa**, and **Arduino**
- **AuthView:** a decentralized review system with incentive schemes to promote authentic reviews; used **React Redux**, **Chrome extension**, **Nodejs Express**, and **Solidity**

## SKILLS & RESEARCH INTEREST

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- **Programming Languages:** Proficient in: JavaScript, Golang and Solidity; Familiar with Python, TypeScript; Previously used Matlab, C and Java
- **Research Interest:** *Applied Cryptography:* Zero-knowledge proof, Secure Multi-party Computation, and Differential Privacy; *Blockchain:* State Channel, Privacy-preserving blockchain