

Wuqi ZHANG

Also known as William Aaron Cheung

Ph.D. Candidate in Computer Science and Engineering

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I am currently a Ph.D. candidate supervised by professor Shing-Chi Cheung at The Hong Kong University of Science and Technology (HKUST) with a research focus : software engineering, especially in software testing and analysis. As a member of the CASTLE Research Group at HKUST, it is very nice to work with a professional and very kind professor, as well as a group of innovative researchers.

🎓 EDUCATION

2019 - Present	Ph.D. in Computer Science and Engineering CGA : 3.933/4.3 The Hong Kong University of Science and Technology, Hong Kong.
2015 - 2019	B.Eng. in Computer Science and Technology GPA : 4.2149/5 (Rank : 1/250), Outstanding Graduates Northeastern University, China

💡 RESEARCH INTERESTS

RESEARCH FOCUS	Software Engineering, Software Testing, Program Analysis
APPLICATION TO	Blockchain, Smart Contracts, Decentralized Applications
OTHER INTERESTS	Web Fingerprinting, Deep Learning System Testing

📖 PUBLICATIONS

2022	[Conditionally Accepted] Surakav : Generating Realistic Traces for a Strong Website Fingerprinting Defense
Conference	Jiajun Gong, Wuqi Zhang, Charles Zhang, Tao Wang In Proceedings of the 43rd IEEE Symposium on Security and Privacy (IEEE S&P 2022), May 23-26, 2022, San Francisco, United States.
2021	Fast Test Input Generation for Finding Deviated Behaviors in Compressed Deep Neural Network
Preprint	Yongqiang Tian, Wuqi Zhang, Ming Wen, Shing-Chi Cheung, Chengnian Sun, Shiqing Ma, Yu Jiang arXiv:2112.02819
2021	WFDefProxy : Modularly Implementing and Empirically Evaluating Website Fingerprinting Defenses
Preprint	Jiajun Gong, Wuqi Zhang, Charles Zhang, Tao Wang arXiv:2111.12629
2021	DArcher : Detecting On-Chain-Off-Chain Synchronization Bugs In Decentralized Applications
Conference	Wuqi Zhang, Lili Wei, Shuqing Li, Yepang Liu, Shing-Chi Cheung In Proceedings of the 29th ACM Joint European Software Engineering Conference and Symposium on the Foundations of Software Engineering (ESEC/FSE '21), August 23-28, 2021, Athens, Greece.
2021	Characterizing Transaction-Reverting Statements in Ethereum Smart Contracts
Conference	Lu Liu, Lili Wei, Wuqi Zhang, Ming Wen, Yepang Liu, Shing-Chi Cheung In Proceedings of the 34th IEEE/ACM International Conference on Automated Software Engineering (ASE '21), November 14-20, 2021, Melbourne, Australia.
2018	Exploration on the Reform of Laboratory Integrated Management System in Colleges and Universities
Journal	Wuqi Zhang, Xingyu Wang, Yi Sha, Lili Zhang Research and Exploration in Laboratory, 2018, 37(11) : 149-152.

🏆 AWARDS

2019	Postgraduate Studentship The Hong Kong University of Science and Technology
2019	Outstanding Graduates of Liaoning Province

- Department of Education of Liaoning, China
- 2018 **Second-class University Scholarship**
Northeastern University, China
- 2018 **Excellent Student Award**
Northeastern University, China
- 2017 **National Scholarship**
Ministry of Education of the People's Republic of China
- 2017 **First-class University Scholarship**
Northeastern University, China
- 2017 **Pacemaker to Excellent Student Award**
Northeastern University, China
- 2016 **National Scholarship**
Ministry of Education of the People's Republic of China
- 2016 **First-class University Scholarship**
Northeastern University, China
- 2016 **Pacemaker to Excellent Student Award**
Northeastern University, China

TEACHING

- 2021-2022 Fall Teaching Assistant for COMP3021 Java Programming, HKUST
- 2020-2021 Spring Teaching Assistant for COMP5111 Fundamentals of Software Analysis, HKUST
- 2020-2021 Fall Teaching Assistant for COMP3021 Java Programming, HKUST

VISITING EXPERIENCE

- Research 2019** | **The Hong Kong University of Science and Technology, HONG KONG, China**
- > Topic : Vulnerability Detection in Ethereum Smart Contracts
 - > Adviser : Professor Shing-Chi Cheung
 - > March, 2019 - May, 2019
- Research Internship
- Research 2018** | **North Carolina State University, NORTH CAROLINA, U.S.A.**
- > Topic : Multiple Peaks Phenomenon in Non-Markovian Epidemics on Multilayer Networks
 - > Adviser : Professor Huaiyu Dai
 - > July, 2018 - August, 2018
- Summer Research Program

WORK EXPERIENCE

- Engineering 2020-2021** | **Hong Kong Applied Science and Technology Research Institute (ASTRI), HONG KONG, China**
- This is a joint project between ASTRI and Crypto-FinTech Lab of HKUST to develop the next-generation distributed file system based on blockchain and distributed computing technologies.
- > October 2020 - June 2021
- Blockchain FinTech Smart Contracts
- Engineering 2018-2019** | **Shenyang Wuzhi Technology Co., Ltd., LIAONING, China**
- The company was funded by alumni of Northeastern University. The work in this company was to develop the back-end server of the mobile application that automatically translates sign language to Chinese.
- > October 2018 - January 2019
- RESTful Service Sever-side Development
- Engineering 2015-2019** | **Publicity Department of Northeastern University, LIAONING, China**
- The work is to continuously maintain various University websites as one of the technical leaders in the student association.
- > October 2015 - June 2019
- Web Development RESTful Service