

Xin LIU

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RESEARCH INTERESTS

cyber forensics (i.e., recovering cyber forensic evidence from data/programs), data privacy (i.e., differential privacy), and software engineering (software testing and reverse-engineering)

EDUCATION

Huazhong University of Science and Technology (985)

B.E. in Electronic and Information Engineering

• Cumulative GPA: 3.72/4 Grade Rank: Top 20% TOEFL: 99 (R27/L25/S23/W24) GRE: 147/169/3

Wuhan Hubei, China

Sep 2016—July 2020

University of Virginia

Ph.D. student in Computer Science

• Advisor: [Yonghui Kwon](#)

Topic: Python decompiler and Webassembly pass optimization

Charlottesville VA, USA

Sep 2020—Sep 2021

PUBLICATIONS

[1] Xin Liu, Pan Zhou, Tie Qiu, Dapeng Oliver Wu. “Blockchain-Enabled Contextual Online Learning under Local Differential Privacy for Coronary Heart Disease Diagnosis in Mobile Edge Computing.” *IEEE Journal of Biomedical and Health Informatics (JBHI’20)*, 2020. [\[PDF\]](#)

EXPERIENCE

Decompile and Transform Python Bytecode

Research Assistant

University of Virginia in Prof. Kwon’s Group

Sep 2020—Sep 2021

- Analyzed Python bytecodes to observe malicious codes with decompile tools, like uncompile6 and decompile3
- Used logical breakdowns and decompile rules to transform bytecodes that failed to be decompiled as Python codes

Privacy-preserving Online Recommendation

Research Assistant

Signal Processing and Information Networking Lab

Sep 2017—May 2020

- Proposed efficient machine learning algorithms, and utilized privacy-preserving mechanisms to handle the issues of content recommendation, disease diagnosis, the privacy of personal information and task allocation in edge computing
- Identified on contextual bandit problems and devised an adaptive system model supporting big data analysis
- Published one paper and finished three papers

IoT Project in Smart Home—Intelligent Mirror

Leader (Funded by the school, 10k RMB)

National University of Singapore in School of Computing

July 2018—Aug 2018

- Utilized computer display screen, and Raspberry pie to build an interactive mirror system in a five-person group.
- Designed adaptive machine learning algorithms to achieve: Identifying different facial pictures, communicating between the hardware (Raspberry pie) and computer to analyze facial details, and recommending personal healthy advice with online learning algorithms.
- Awarded the Outstanding student in the 2018 National University of Singapore Summer Camp. (6/30)

HONORS

National encouragement scholarship (10%)

Aug 2019

Science and technology innovation scholarship (10%)

Aug 2019

Social welfare scholarship (only one in a class)

Sep 2018

Excellent volunteer certificate (over 150 working hours)

Aug 2018

Excellent class cadre scholarship (only one in a class)

Aug 2018