

# RUISHI LI (李蕊诗)

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## EDUCATION

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**University of Chinese Academy of Sciences**, Beijing, China ..... Sep. 2019 - Jun. 2022(expected)

M.S. in Cyber Security, Institute of Information Engineering ..... Overall GPA: 3.94/4.00

Advisor: Kai Chen.

**Wuhan University**, Wuhan, China ..... Sep. 2015 - June. 2019

B.E. in Information Security, School of Cyber Science and Engineering ..... Overall GPA: 3.81/4.00

Advisor: Liqiang Zhang.

Ranked first in recommending excellent undergraduates to study for a master's degree without examination.

## RESEARCH INTERESTS

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I am broadly interested in computer security and software engineering(e.g., software security, OS security, machine learning security, and hardware security). Recently, I focus on vulnerability discovery.

## PUBLICATIONS

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[1] **RTFM! Automatic Assumption Discovery and Verification Derivation from Library Document for API Misuse Detection.**

Tao Lv, Ruishi Li, Yi Yang, Kai Chen, Xiaojing Liao, XiaoFeng Wang, Peiwei Hu and Luyi Xing. In *Proceedings of the ACM Conference on Computer and Communications Security (CCS)*, November, 2020.

This research extracts the integration assumptions(IAs) from the library API document using sentimental analysis and translates them to verification code for a compliance check on the softwares using these APIs. We implemented this design as Advance. When evaluated on 5 popular libraries (OpenSSL, SQLite, libpcap, libdbus and libxml2) and 39 real-world applications, it detected 193 API misuses.

## PROJECT EXPERIENCE

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**Defense of End-to-end Voiceprint Recognition Based on Synthetic Speech detection** ... Jan. 2019 - Apr. 2019

- Test the attack effect of Tacotron2 synthesized speech and ASVspoof2015 synthesized speech on GE2E voiceprint recognition system.
- Propose a new phase-frequency feature LSTM-P and trained a machine learning-based synthetic speech detector.
- Achieve the accuracy of 97.2% when detecting synthetic speech.

**The Real-time Miner Hunter** ..... Mar. 2018 - July 2018

- Implement a real-time detector for mining software on the Windows platform.
- Integrate the results of three detection modules (data packet structure matching, traffic model detection, and instruction sequence matching).
- Show real-time monitoring results through the UI interface and provide whitelist and interception functions.

## INTERNSHIP EXPERIENCES

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**Deloitte**, Wuhan, China ..... July 2018 - Aug. 2018  
*Tax and Business Advisory Department*: developing the financial system for Dongfeng Motor Co. Ltd.

## PROFESSIONAL SKILLS

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**Vulnerability discovery**: Fuzzing, symbolic execution, and static analysis (e.g., CodeQL).

**Natural language processing**: Preliminary in sentiment analysis, dependency parsing, word embedding, Part-of-speech tagging, and shallow parsing.

**Programming language**: C and Python.

## HONORS AND AWARDS

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<b>Merit Student</b> , University of Chinese Academy of Sciences (20%, 71/347)	2020
<b>Outstanding Graduates</b> , Wuhan University	2019
<b>First-class Scholarship for Outstanding Students</b> , Wuhan University (5%)	2018
<b>National Encouragement Scholarship</b> , Wuhan University	2018
<b>First Class Prize</b> , The 11th National College Student Information Security Contest (8%, 40/494)	2018
<b>Tianyuan Dic Scholarship</b> , Wuhan University	2018
<b>Merit Student</b> , Wuhan University (10%)	2016, 2017, 2018
<b>Second-class Scholarship for Outstanding Students</b> , Wuhan University (15%)	2016
<b>Freshman Second-class Scholarship</b> , Wuhan University	2015