

# RUISHI LI (李蕊诗)

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## EDUCATION

**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

I am broadly interested in operating systems, software engineering and computer security at all layers (e.g., software, system and hardware security). Recently, I focus on vulnerability discovery.

## PUBLICATIONS

[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 utilizes sentimental analysis to recover APIs' integration assumptions (IAs) from documentation and translates them to verification code for a compliance check on the softwares integrating these IAs. We implemented this design and evaluated it on 5 popular libraries (OpenSSL, SQLite, libpcap, libdbus and libxml2) and 39 realworld applications. 193 API misuses were detected at the end.

## PROJECT EXPERIENCE

**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

**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 Inspirational 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             |