

# WEIZHAO JIN

100 Wahoo Way, 1212, Charlottesville, Virginia, USA 22903  
wj6ef@virginia.edu

## Education

---

**Zhejiang University** September 2014 - June 2018  
• Bachelor of Engineering in Electrical Engineering and Automation GPA: 3.59/4.00

**University of Virginia** August 2018 - May 2020 (expected)  
• Master of Engineering in Computer Engineering GPA: 3.86/4.00

**Courses Related to Security & Privacy:** Defense Against Dark Arts, Mobile and IoT Security, and Computer Architecture (Cache Side-channel Attack), Introduction to Cryptography (Spring 2020)

## Research Experience

---

**Cloud Computing Lab, University of Virginia** Student Research Assistant October 2019 - Present  
Advisor: Haiying Shen

### Time-series-based CAN Bus Message Adversary Detection

- Building a LSTM model that can detect various types of CAN bus attacks
- Applying unsupervised method to tackle the anomaly insufficiency problem in the training data

**Security Lab, University of Virginia** Student Research Assistant October 2018 - Present  
Advisor: Tian Yuan

### Vulnerabilities of Autonomous Vehicle Sensor Fusion Algorithm (in preparation)

January 2019 - Present

- Training adversarial examples against vision recognition module
- Testing and attacking the sensor fusion algorithm of the autonomous vehicle platform Baidu Apollo

### Security Research on User Behavior Analytics for Facebook Login Protection (in preparation)

January 2019 - May 2019

- Developed a chrome extension to record user activity data and conduct a security experiment survey on Facebook
- Designed a hypothetical security warning mechanism for Facebook login protection

### Vulnerabilities of Dedicated Short-Range Communication

October 2018 - January 2019

- Analyzed existing vulnerabilities in the current version of DSRC protocol for connected vehicles
- Designed several attacks on DSRC protocol on connected vehicle modules

**USS Lab, Zhejiang University** Student Research Assistant October 2017 - June 2018  
Advisor: Professor Wenyuan Xu

### Security Research on Multi-factor Verification for Online Accounts

- Employed OpenBTS and USRP, combining Osmocombb open source projects, built a SMS sniffing system
- Investigated the online account security issue caused by SMS based multi-factor verification
- Designed a chain reaction attack mechanism which can compromise most of the online service accounts

## Publication

---

[1] Tu Le, Ingy ElSayed-Aly, **Weizhao Jin**, Seunghan Ryu, Guy Verrier, Tamjid Al Rahat, B. Brian Park, and Yuan Tian, **Poster: Attack the Dedicated Short-Range Communication for Connected Vehicles** In 40th IEEE Symposium on Security and Privacy, 2019

[2] **Weizhao Jin**, Xiaoyu Ji, Ruiwen He, Zhou Zhuang, Yihang Wang, Wenyuan Xu and Yuan Tian, **Towards Fortifying the Multi-Factor-Based Online Account Ecosystem** (submitted to The Web Conference 2020)

[3] Tu Le, **Weizhao Jin**, Seunghan Ryu, B. Brian Park, and Yuan Tian, **Vulnerability Analysis of Current DSRC Deployment**(submitted to VEHITS 2020)

## Teaching Experience

---

**University of Virginia** Graduate Teaching Assistant December 2019 – May 2020  
• Responsible for class preparation and test grading for Probability (APMA 3100)  
• Holding weekly workshops for problem sets and projects

**University of Virginia** Graduate Teaching Assistant August 2019 – December 2019  
• Responsible for class preparation and test grading for Applied Statistics and Probability (APMA 3110)  
• Holding weekly workshops for problem sets and projects

## Activities

---

<b>ACM TURC 2018</b>	Volunteer	May 2018
<ul style="list-style-type: none"><li>• Communicated and coordinated with foreign scholars during the conference</li><li>• Coordinated participants with check-in related procedures</li></ul>		
<b>AIESEC Overseas Internship Department</b>	Program Coordinator	October 2014 - June 2015
<ul style="list-style-type: none"><li>• Liaised with overseas internship companies, assisted interns in working visa issues</li><li>• Participated in the coordination of the Youth to Business Hangzhou event</li></ul>		
<b>Overseas Internship Program</b>	Intern	July 2015 - August 2015
<ul style="list-style-type: none"><li>• Participated in training volunteers, managed task assignment at NGO RESALA in Egypt</li><li>• Assisted RESALA in holding a Global Village cultural exchange activity</li></ul>		

## Skills And Awards

---

**Language:** Chinese (native speaker), English (proficient), German (European B1)

**Technical:** Python, Pytorch, C/C++, Matlab, Assembly Language, MySQL, Java, Ubuntu, Javascript, Simulink, Embedded System, Multism

**Awards:** Third Place in the 2015 Zhejiang University English Listening Competition (with 3,000 participants), Winner Team Member in the 2016 Zhejiang University Rugby League