

# LIMIN YANG

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## EDUCATION

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University of Illinois Urbana-Champaign, Ph.D. in Computer Science, Advisor: Gang Wang Aug.2019 – May 2024  
Virginia Tech, Ph.D. in Computer Science, Advisor: Gang Wang Aug.2018 – Aug.2019  
East China Normal University, Masters Study in Computer Science Sep.2015 – Jun.2018  
East China Normal University, B.E. in Computer Science Sep.2011 – Jun.2015

## RESEARCH INTERESTS

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Security, measurement, and human factors.

## PUBLICATIONS

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[IMC'19] Peng Peng, **Limin Yang**, Linhai Song, Gang Wang. "Opening the Blackbox of VirusTotal: Analyzing On-line Phishing Scan Engines." In Proceedings of *The ACM SIGCOMM Internet Measurement Conference*, Amsterdam, Netherlands, October 2019.

[USENIX Security'18] Dongliang Mu, Alejandro Cuevas, **Limin Yang**, Hang Hu, Xinyu Xing, Bing Mao, Gang Wang. "Understanding the Reproducibility of Crowd-reported Security Vulnerabilities." In Proceedings of *The 27th USENIX Security Symposium*, Baltimore MD, August 2018.

[Globecom'17] **Limin Yang**, Xiangxue Li, Yu Yu. "VulDigger: A Just-in-time and Cost-Aware Tool for Digging Vulnerability-Contributing Changes." In Proceedings of *IEEE Global Communications Conference (GLOBECOM)*, Singapore, December 2017.

[PPNA'17] Minhui Xue, **Limin Yang**, Keith W. Ross, and Haifeng Qian. "Characterizing user behaviors in location-based find-and-flirt services: Anonymity and demographics." In *Peer-to-Peer Networking and Applications (PPNA)*, 2017.

## RESEARCH EXPERIENCE

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**VirusTotal Phishing URLs Scanning**, Research Assistant, Virginia Tech Jan.2019 – May 2019

- Control phishing websites to understand the quality and reliability of security scanners and VirusTotal.
- Set up multiple PayPal and IRS phishing sites and submit them to VirusTotal and its 68 vendors periodically.
- Observe the incoming traffic of our phishing sites to verify the reliability of VirusTotal.

**Alexa Cloud Spoofing**, Research Assistant, Virginia Tech Aug.2018 – May 2019

- Understand the authentication mechanism in smart home assistant systems (Alexa and Google Home).
- Develop an Alexa skill and a Google Home action for finding authentication issues.
- Verify that replay attack and SQL injection attack are feasible with proof-of-concept experiments.

**Vulnerabilities Reproduction**, Research Intern, The Pennsylvania State University Nov.2017 – Jan.2018

- An empirical study to unveil the reproducibility of vulnerabilities using crowdsourcing information.
- Collect bug reports from websites like exploit-db and summarize missing information to reproduce a bug.
- Measurement analysis on how crowdsourcing could ease the effort by manually reproducing the bugs.

**Vulnerability Contributing Commits (VCCs) Prediction**, Research Assistant, ECNU Nov.2016 – Mar.2017

- Predict whether a code commit would introduce potential security vulnerabilities.

- Build a vulnerability prediction model for the Firefox project on code commits level (Precision: 92%, Recall: 14%).
- Build another effort-aware model to capture 31% VCCs with 20% inspection effort (measured by lines of code).

## INTERNSHIPS

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**The Pennsylvania State University, Research Intern**, Pennsylvania, US

*Sep.2017 – Feb.2018*

- Collect bug reports from websites like exploit-db and summarize missing information to reproduce a bug.
- Measurement analysis on how crowdsourcing could ease the effort by manually reproducing the bugs.

**Xuebajun, Search & Rank Intern**, Shanghai, China

*Sep.2016 – Oct.2016*

- Locate reasons for response bottleneck by reading the source code related to searching of Xuebajun app.
- Finish a comprehensive code report (10,000+ SLOC).

**Peking University, Exploit Intern**, Beijing, China

*Jul.2015 – Aug.2015*

- Focus on practical training like binary vulnerability discovery/exploit (Windows).
- Extract fingerprints for industrial control systems like Siemens S7-1200 with Nmap.

**UnionPay Smart, Quantitative Analyst Assistant Intern**, Shanghai, China

*Mar.2015 – Jun.2015*

- Fetch and analyze luxury industry data from the transaction records of 2.7 billion credit cards provided by UnionPay.

## AWARDS

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- ECNU Graduate Student Overseas Research Scholarship
- ECNU Top-notch Innovative Personnel Training Plan (4/91)

*2017*

*2013 – 2015*

## TEACHING

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- CS-4264 Principles of Computer Security, Virginia Tech, Teaching Assistant
- CS-3114 Data Structures and Algorithms, Virginia Tech, Teaching Assistant

*Spring 2019*

*Fall 2018*