Limin Yang

liminyang@vt.edu +1 (540)998-9158 https://people.cs.vt.edu/liminyang GitHub: whyisyoung

Education

Virginia Tech, Ph.D. in Computer Science, Advisor: Gang Wang *Aug.2018 – Present*

The Pennsylvania State University, Visiting Student, Advisor: Xinyu Xing and Gang Wang *Sep.2017 – Feb.2018*

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

Security, measurement, and human factors.

Publications

[Submitted, IMC'19] Peng Peng, **Limin Yang**, Linhai Song, Gang Wang. "Opening the Blackbox of VirusTotal: Analyzing Online Phishing Scan Engines." Submitted to *The ACM Internet Measurement Conference*, Amsterdam, Netherlands, October 2019.

[Submitted, IMC'19] Hang Hu, **Limin Yang**, Shihan Lin, Gang Wang. "Peeking Over the Edge: Spoofing the Cloud Service of Smart Home Assistant Systems." Submitted to *The ACM 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. "Charactering user behavior in location-based find-and-flirt services: anonymity and demographics." In *Peer-to-Peer Networking and Applications (PPNA)*, 2017.

Research Experience

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*

- 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

XuebaJun, Search & Rank Intern, Shanghai, China *Sep.2016 – Oct.2016*

- Locate reasons of response bottleneck by reading the source code related to searching of XuebaJun app.
- Finish an extensive 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

- ECNU Graduate Student Overseas Research Scholarship *2017*
- ECNU Top-notch Innovative Personnel Training Plan **(4/91)** *2013 – 2015*

Teaching Assistant

- CS-3114 Data Structures and Algorithms, Virginia Tech *Fall 2018*
- CS-4264 Principles of Computer Security, Virginia Tech *Spring 2019*