Limin Yang

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Education

University of Illinois at 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, BEng in Computer Science *Sep.2011 – Jun.2015*

Internships

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.

Projects

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.

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).

Publications

[IMC'19] Peng Peng, **Limin Yang**, Linhai Song, Gang Wang. "Opening the Blackbox of VirusTotal: Analyzing Online Phishing Scan Engines." 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." 2018.

[Globecom'17] Limin Yang, Xiangxue Li, Yu Yu. "VulDigger: A Just-in-time and Cost-Aware Tool for Digging Vulnerability-Contributing Changes." 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.

Awards

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

Skills

Language: Python, C++, C, SQL. **Basics:** Git, Linux, Photoshop, LaTeX.
Data Science: Keras, Scikit-learn, Numpy, Scipy. **Database:** PostgreSQL.
Frameworks and Platforms: Ruby on Rails, wxPython, Hadoop, Windows SDK.