

Feng Xiao

CONTACT INFORMATION	756 W Peachtree St NW Atlanta, GA 30308	feng@gatech.edu www.fxiao.me
RESEARCH INTERESTS	Software security, web security, and program analysis. My work has been used by top companies like Google and resulted in many important updates in the popular open source software such as MongoDB (more than 30 CVEs are assigned).	
EDUCATION	Georgia Institute of Technology, USA Ph.D. in Computer Sciences	August 2019 - now
	Wuhan University, China B.E. in Computer Science	Sept 2014 - June 2018
PUBLICATIONS	4 papers in top-tier academic security conferences (Oakland, CCS, SEC) 3 papers in top-tier industry security conference (BlackHat USA, DEFCON USA)	

PEER-REVIEWED CONFERENCES

- [1] *Understanding and Mitigating Remote Code Execution Vulnerabilities in Cross-Platform Ecosystem*
Feng Xiao, Zheng Yang, Joey Allen, Guangliang Yang, Grant Williams, Wenke Lee
In Proceedings of the ACM Conference on Computer and Communications Security (CCS), 2022.
- [2] *Abusing Hidden Properties to Attack Node.js Ecosystem*
Feng Xiao, Jianwei Huang, Yichang Xiong, Guangliang Yang, Hong Hu, Guofei Gu, Wenke Lee
In Proceedings of the USENIX Security Symposium (SEC), 2021.
- [3] *Active Link Obfuscation to Thwart Link-flooding Attacks for Internet of Things*
Xuyang Ding, **Feng Xiao**, Man Zhou, Zhibo Wang
In Proceedings of the IEEE International Conference on Trust, Security and Privacy in Computing and Communications (TrustCom), 2020.
- [4] *Unexpected Data Dependency Creation and Chaining: A New Attack to SDN*
Feng Xiao, Jinquan Zhang, Jianwei Huang, Guofei Gu, Dinghao Wu, Peng Liu
In Proceedings of the IEEE Symposium on Security and Privacy (Oakland), 2020.
- [5] *PatternListener: Cracking Android Pattern Lock Using Acoustic Signals*
Man Zhou, Qian Wang, Jingxiao Yang, Qi Li, **Feng Xiao**, Zhibo Wang, Xiaofeng Chen
In Proceedings of the ACM Conference on Computer and Communications Security (CCS), 2018.
- [6] *CHAOS: An SDN-Based Moving Target Defense System*
Yuan Shi, Huanguo Zhang, Juan Wang, **Feng Xiao**, Jianwei Huang, Daochen Zha
In Proceedings of Security and Communication Networks (SCN), 2017.

INDUSTRIAL CONFERENCE/POSTER

- [7] *Discovering Hidden Properties to Attack the Node.js Ecosystem*
Feng Xiao, Jianwei Huang, Yichang Xiong, Guangliang Yang, Hong Hu, Guofei Gu, Wenke Lee
In Black Hat USA Briefings, 2020.
- [8] *Hidden Properties in Node.js Ecosystem*
Feng Xiao, Jianwei Huang, Yichang Xiong, Guangliang Yang, Hong Hu, Guofei Gu, Wenke Lee
In DEFCON USA Briefings, 2020.

- [9] *Hacking the Brain: Customize Evil Protocol to Pwn an SDN Controller*
Feng Xiao, Jianwei Huang, Peng Liu
 In DEFCON USA Briefings, 2018.
- [10] *Enabling Secure Location Authentication in Drone (poster)*
Feng Xiao, Man Zhou, Youchen Liye, Qian Wang
 In Proceedings of Annual International Conference on Mobile Computing and Networking (MobiCom), 2017

HONORS AND AWARDS	Most Innovative Research Award Runner-Up, Pwnie Award	2020
	Presidential Scholarship (9000 USD), Georgia Tech	2019
	ACM CCS Student Travel Grant	2018
	Rednor IST Fellowship (7000 USD), Penn State University	2018
	Xiaomi Scholarship (3000 USD), Wuhan University	2017
	ACM MobiCom Student Travel Grant (1000 USD)	2017
	🏆 China National Scholarship (Highest student honor nation wide, 1200 USD)	2016
	Yuanyi Scholarship (3000 USD), Wuhan University	2015
	Hall of Fame, T00ls (largest Chinese security community)	2014

RESEARCH GRANTS **AI-Assisted Prevention of Supply Chain Attacks on Programming Language Package Managers**
 Senior Personnel
 Defense Advanced Research Projects Agency (DARPA)
 With Wenke Lee (co-PI) and Taesoo Kim
 07/2021 - 12/2022

Interactive Editing Techniques for Subsetting and Dialeting Network Protocol
 Senior Personnel
 Office of Naval Research (ONR)
 With Taesoo Kim (PI), Brendan Saltaformaggio, William Harris, Santosh Pande, Alessandro Orso and Wenek Lee
 04/2018 - 10/2023

OPEN SOURCE CONTRIBUTION **Tsunami-Callback:** An web vulnerability detection service used and maintained by Google
 Lead author
<https://github.com/google/tsunami-security-scanner-callback-server>

Lynx: An automatic tool for detecting JavaScript hidden property vulnerabilities
 Lead author
<https://github.com/xiaofen9/XGuard>

SVHunter: An automatic tool for detecting cross-component data poisoning issues in Software-defining Networking (SDN) Controllers
 Lead author
<https://github.com/xiaofen9/SVhunter>

INVITED TALKS	Automatic Web Vulnerability Detection Google, Virtually	2019
	Abusing Hidden Properties to Attack Node.js Ecosystem USENIX Security, Virtually	2021

BlackHat USA, Virtually	2020
DEFCON USA, Virtually	2020

Unexpected Data Dependency Creation and Chaining: A New Attack to SDN	
Oakland, Virtually	2020

Hacking the Brain: Customize Evil Protocol to Pwn an SDN Controller	
DEFCON USA, Virtually	2019

TEACHING
EXPERIENCE

School of Computer Science, Georgia Institute of Technology, Atlanta, GA, USA

<i>Graduate Teaching Assistant</i>	August 2022 - now
<i>CS 6035 Introduction to Information Security</i>	