Chenxiong Qian

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Education

Jan 2015 – May 2021 **Ph.D. Candidate, Georgia Institute of Technology** in Computer Science. Advisors: Dr. Wenke Lee and Dr. William R. Harris

Sept 2009 – Jun 2013 **Bachelor of Science, Nanjing University** in Software Engineering.

Research Interests

My research interests include software security, system security, mobile security and program analysis. I have been focusing on reducing programs' attack surface through program reasoning, policy enforcing and code removing. In pursuit of these goals, I have built tools for finding bugs, enforcing control flow integrity, and have built debloating frameworks for removing code of software's unneeded features.

Publications

Conference Proceedings

1. **Qian**, **C.**, Koo, H., Oh, C., Kim, T., & Lee, W. (2020). Slimium: Debloating the chromium browser with feature subsetting. *27th ACM Conference on Computer and Communications Security (CCS)*.
2. ***Qian**, **C.**, *Hu, H., Alharthi, M., Chung, P. H., Kim, T., & Lee, W. (2019). Razor: A framework for post-deployment software debloating. *28th USENIX Security Symposium (USENIX)* ∗ *co-first author*.
3. Hu, H., **Qian**, **C.**, Yagemann, C., Chung, S. P. H., Harris, W., Kim, T., & Lee, W. (2018). Enforcing unique code target property for control-flow integrity. *25th ACM Conference on Computer and Communications Security (CCS)*.
4. Meng, W., **Qian**, **C.**, Hao, S., Borgolte, K., Vigna, G., Kruegel, C., & Lee, W. (2018). Rampart: Protecting web applications from cpu-exhaustion denial-of-service attacks. *27th USENIX Security Symposium (USENIX)*.
5. Xu, M., **Qian**, **C.**, Lu, K., Backes, M., & Kim, T. (2018). Precise and scalable detection of double-fetch bugs in os kernels. *39th IEEE Symposium on Security and Privacy (Oakland)*.
6. *Ding, R., ***Qian**, **C.**, Song, C., Harris, W., Kim, T., & Lee, W. (2017). Efficient protection of path-sensitive control security. *26th USENIX Security Symposium (USENIX)* ∗ *co-first author*.
7. Fratantonio, Y., **Qian**, **C.**, Chung, S. P. H., & Lee, W. (2017). Cloak and dagger: From two permissions to complete control of the ui feedback loop. *38th IEEE Symposium on Security and Privacy (Oakland)* *Distinguished Practical Paper award!*
8. Yu, L., Luo, X., **Qian**, **C.**, & Wang, S. (2016). Revisiting the description-to-behavior fidelity in android applications. *2016 IEEE 23rd International Conference on Software Analysis, Evolution, and Reengineering (SANER)*.
9. Xue, L., **Qian**, **C.**, & Luo, X. (2015). Androidperf: A cross-layer profiling system for android applications. *2015 IEEE 23rd International Symposium on Quality of Service (IWQoS)*.
10. Luo, X., Xue, L., Shi, C., Shao, Y., **Qian**, **C.**, & Chan, E. W. (2014). On measuring one-way path metrics from a web server. *2014 IEEE 22nd International Conference on Network Protocols*.
11. **Qian**, **C.**, Luo, X., Shao, Y., & Chan, A. T. (2014). On tracking information flows through jni in android applications. *2014 44th Annual IEEE/IFIP International Conference on Dependable Systems and Networks (DSN)*.

12. Shao, Y., Luo, X., **Qian, C.**, Zhu, P., & Zhang, L. (2014). Towards a scalable resource-driven approach for detecting repackaged android applications. *Proceedings of the 30th Annual Computer Security Applications Conference (ACSAC)*.

Journal Articles

1. *Xue, L., ***Qian, C.**, Zhou, H., Luo, X., Zhou, Y., Shao, Y., & Chan, A. T. (2019). Ndroid: Toward tracking information flows across multiple android contexts. *IEEE Transactions on Information Forensics and Security* ∗ *co-first author*.
2. Yu, L., Luo, X., **Qian, C.**, Wang, S., & Leung, H. K. (2018). Enhancing the description-to-behavior fidelity in android apps with privacy policy. *IEEE Transactions on Software Engineering*.
3. Xu, M., Song, C., Ji, Y., Shih, M.-W., Lu, K., Zheng, C., Duan, R., Jang, Y., Lee, B., **Qian, C.**, Lee, S., & Kim, T. (2016). Toward engineering a secure android ecosystem: A survey of existing techniques. *ACM Comput. Surv.*
4. **Qian, C.**, Luo, X., Yu, L., & Gu, G. (2015). Vulhunter: Toward discovering vulnerabilities in android applications. *IEEE Micro*.
5. Shao, Y., Luo, X., & **Qian, C.** (2014). Rootguard: Protecting rooted android phones. *Computer*.

Services

Committee Member	**PLDI 2016**, Artifact Evaluation Committee.
External Reviewer	**Oakland (2018, 2019, 2020), USENIX (2016, 2017), CCS (2019), NDSS (2017), EuroSP (2018), RAID (2017), FEAST (2017)**

Research Experiences

Jan 2015 - Now	Research Assistant, Georgia Institute of Technology.
Sep 2013 - Dec 2014	Research Assistant, The Hong Kong Polytechnic University.
Nov 2012 - Apr 2013	Project Technical Assistant, The Hong Kong Polytechnic University.

Teaching Experiences

August 2020	Instructor, 2020 Software Security Summer School
Spring 2018	Teaching Assistant, CS 4235/CS 6035
Fall 2016	Teaching Assistant, CS 4235/CS 6035