Zhengyang Qu

1735 Chicago Ave. APT 604N, Evanston, IL, 60201
616-216-9128 | zhengyangqu2017@u.northwestern.edu

TECHNICAL SKILLS

- 5 years of experience in Android Security, Natural Language Processing and Machine Learning
- 3 years of experience as an individual Mobile/Web developer
- Expert in Java and Python Proficient in C/C++, Swift, JavaScript, Go, and Ruby

EDUCATION

Northwestern University – Evanston, IL 09/2012 – 06/2017 (Expected)
Ph.D. Candidate in Computer Science GPA: 3.89/4.0
Dissertation title: Towards the Privacy Leakage and User Fraud Detection of Android Applications
Advisor: Prof. Yan Chen

Shanghai Jiao Tong University – Shanghai, China 09/2008 – 06/2012
Bachelor of Science in Electrical Engineering GPA: 88.4/100

RELATED EXPERIENCE

Samsung Research America – Mountain View, CA 06/2015 – 09/2015
Software Engineering Intern Mentor: Michael Grace & Xiaoyong Zhou

- Designed and implemented customized Android 4.3 OS to monitor, capture, and analyze application's malicious behavior through Android dynamic code loading
- Built a framework to identify obfuscation techniques used in Android applications

Honeywell – Shanghai, China 07/2011 – 09/2011
Software Engineering Intern Mentor: Will Huang

- Explored the application of energy-efficient protocol PW-MAC to mobile scanner
- Tested the software functionalities of mobile scanner, e.g., image processing

RESEARCH EXPERIENCE

RiskCog: Learning-based User Identification on Smartphones 2015– 2016

- Designed and implemented a machine learning system to identify device owner by motion sensor data from smartphone

DyDroid: Security Analysis on Dynamic Code Loading in Android Applications 2015– 2016

- Built a dynamic security analysis framework to capture dynamic code loading behavior, track its provenance, and intercept the loaded code
- Built a static analysis framework to investigate malicious behavior and privacy leakage in the intercepted code

AppShield: Application Rewriting-based Access Control Platform https://goo.gl/Z4eSri 2014– 2015

- Built a system to enforce arbitrary security policies with no dependency on Android OS modification in the scenario of Mobile Application Management (MAM)

AutoCog: Android Applications Description-to-permission Fidelity https://goo.gl/yfb25L 2012– 2014

- Built a natural language analysis tool that checks the consistency of text description on Android apps and requested sensitive permissions

SOFTWARE ARTIFACTS

Boost Droid – Google Play: https://goo.gl/IvdgpO 02/2016– 03/2016

- An Android application that optimizes the system performance with four components: memory optimization, junk file cleaner, data usage monitor, device usage summary

DrawMatch – Web: http://www.drawmatch.com 04/2015– 10/2015

- An iOS game where the players can test their drawing skills and compete with friends

Uyule – Google Play: https://goo.gl/Mvntzh 04/2014– 11/2014

- A social networking application that groups entertainers' news and e-commerce products by nametag

SELECTED PUBLICATIONS

- **Zhengyang Qu**, V. Rastogi, X. Zhang, Y. Chen, T. Zhu, Z. Chen, "AutoCog: Measuring the Description-to-permission Fidelity in Android Applications", in Proc. of ACM Conference on Computer and Communications Security (CCS) 2014 (acceptance rate: 19.5%, 114/585).