Chang Min Park

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INTERESTS

Mobile systems, UI automation, and automated testing system.

TECHNICAL SKILLS

Android Platform API, Soot API, Java, Python, C++, and Linux OS

EDUCATION

University at Buffalo, The State University of New York

■ Ph.D. in Computer Science and Engineering

Aug '17 - Present

- Advisor: Prof. Steven Y. Ko
- Focus: Mobile computing and applications.
- B.S. in Computer Science

Aug '11 – May '17

Magna Cum Laude

• Jun '13 – Mar '15: Served Military Service in Republic of Korea

Yonsei University, Republic of Korea

SUNY Study Abroad Program

Summer '12

RESEARCH OVERVIEW

Over the course from my undergraduate to Ph.D., I have focused on mobile systems and automation.

- Gesto is a system that enables task automation for Android apps using gestures and voice commands.
 Using our system, a user can record a UI action sequence for an app, choose a gesture or a voice command to activate the UI action sequence, and later trigger the UI action sequence by the corresponding gesture/voice command.
- **Reptor** enables open innovation in mobile platforms. Our technique allows third-party developers to modify, instrument, or extend platform API calls and deploy their modifications seamlessly. The uniqueness of our technique is that it enables modifications completely at the app layer without requiring any platform-level changes.
- **Mimic** is an automated UI compatibility testing system for Android apps. Mimic is designed specifically for comparing the UI behavior of an app across different devices, different Android versions, and different app versions.

RESEARCH EXPERIENCE

University at Buffalo, The State University of New York

• Ph.D. Research Assistant, RMS Lab

Aug '18 – Present

- Project: Mapping UI Events to Gestures and Voice, and Automated Testing System.
- Undergraduate Research Assistant, RMS Lab

May '16 – Aug '17

• Project: Android Platform API Virtualization

TEACHING EXPERIENCE

University at Buffalo, The State University of New York

■ CSE421/521: Operating Systems

Aug '17 – May '18

• Design and Implementation of Operating Systems

• Project: Pintos Programming

PUBLICATIONS

CONFERENCES

- [1] Chang Min Park, Taeyeon Ki, Ali Ben Ali, Nikhil Sunil Pawar, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Gesto: Mapping UI Events to Gestures and Voice" forthcoming in *Proceedings of 11th ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS) Jun 2019.*
- [2] Taeyeon Ki, Alexander Simeonov, Bhavika Pravin Jain, <u>Chang Min Park</u>, Keshav Sharma, Karthik Dantu, Stevn Y. Ko, and Lukasz Ziarek, "Reptor: Enabling API Virtualization on Android for Platform Openness" in *Proceedings of the 15th Annual International Conference on Mobile Systems (MobiSys) Jun 2017*.

JOURNALS

[1] <u>Chang Min Park</u>, Taeyeon Ki, Ali Ben Ali, Nikhil Sunil Pawar, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Gesto: Mapping UI Events to Gestures and Voice" forthcoming in *Journal Proceedings of the ACM on Human-Computer Interaction - EICS 2019*.

POSTERS AND DEMOS

POSTERS

[1] Chang Min Park, Taeyeon Ki, Ali Ben Ali, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Enabling Dynamic Gesture Mapping with UI Events" in *UB Graduate Research Conference and Alumni Symposium Sep 2017*.

DEMOS

- [1] Chang Min Park, Taeyeon Ki, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Demo: Enabling Dynamic Gesture Mapping with UI Events" in *Proceedings of the 15th Annual International Conference on Mobile Systems (MobiSys) Jun 2017.*
- [2] Taeyeon Ki, Alexander Simeonov, Chang Min Park, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Demo: Reptor: Enabling API Virtualization on Android for Platform Openness" in *Proceedings of the 15th Annual International Conference on Mobile Systems (MobiSys) Jun 2017.*
- [3] Taeyeon Ki, Alexander Simeonov, Chang Min Park, Karthik Dantu, Steven Y. Ko, and Lukasz Ziarek, "Demo: Fully Automated UI Testing System for Large-scale Android Apps Using Multiple Devices" in *Proceedings of the 15th Annual International Conference on Mobile Systems (MobiSys) Jun 2017.*

HONORS & AWARDS

- Dean's Fellowship Award along with a Full Financial Aid 2017 2018 For exceptional graduate students who have potential for an outstanding graduate career at this University.
- CSE Undergraduate Award for Research, University at Buffalo
 May 2017
- Dean's List, Fall 2012, University at Buffalo

2012

ACTIVITIES

Tau Beta Pi Engineering Honor Society, University at Buffalo

■ Member 2016 – 2017