Yuanchun Li

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Research Interests

Our smart devices produce and store a lot of personal data. How can we make use of this data to improve our lives? Meanwhile, how can we avoid it being misused to harm our privacy? My research interacts mobile computing, security and privacy, and software engineering to address these problems.

Education

Ph.D., Computer Science, Peking University **2014.9 – Now**

- Advisors: Yao Guo, Xiangqun Chen, Gang Huang

B.S., Computer Science, Peking University **2010.9 – 2014.9**

Professional Experiences

Software Intern, Monetization Department, Xiaomi Inc, Beijing **2017.10 – 2018.1**

- Advisors: Chengming Wen
- Worked on building personal knowledge graphs to understand smartphone users

Visiting Student, Human-Computer Interaction, Carnegie Mellon University **2016.9 – 2017.9**

- Advisors: Jason I. Hong, Yuvraj Agarwal
- Worked on creating programming models for easy and privacy-aware personal data processing

Selected Honors, Grants and Awards

- National Scholarship 2017
- IS-EUD Best Paper Award 2017
- Bosch/Bezirk Internet of Things Hackathon - 1st place ($1000) 2016
- UbiComp Best Paper Honorable Mention Award 2016
- Google Summer of Code ($5500) 2016
- Merit Student at Peking University 2016
- Google Summer of Code ($5500) 2015

Publications

- **Peer-reviewed Journal Papers**

[J.1] **Yuanchun Li**, Fanglin Chen, Toby Jia-Jun Li, Yao Guo, Gang Huang, Matthew Fredrikson, Yuvraj Agarwal, and Jason I. Hong. 2017. PrivacyStreams: Enabling Transparency in Personal Data Processing for Mobile Apps. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 1, 3, Article 76 (September 2017), 26 pages. (IMWUT, aka. UbiComp)

[J.2] **Yuanchun Li**, Baoxiong Jia, Yao Guo, and Xiangqun Chen. 2017. Mining User Reviews for Mobile App Comparisons. Proc. ACM Interact. Mob. Wearable Ubiquitous Technol. 1, 3, Article 75 (September 2017), 15 pages. (IMWUT, aka. UbiComp)

[J.3] Haoyu Wang, **Yuanchun Li**, Yao Guo, Yuvraj Agarwal, and Jason I. Hong. 2017. Understanding the Purpose of Permission Use in Mobile Apps. ACM Trans. Inf. Syst. 35, 4, Article 43 (July 2017), 40 pages (TOIS)

- **Peer-reviewed Conference Papers**

[C.1] Toby Jia-Jun Li, **Yuanchun Li**, Fanglin Chen and Brad A. Myers. 2017. Programming IoT Devices by Demonstration Using Mobile Apps. End-User Development. International Symposium on End User Development (IS-EUD, Best Paper Award)

[C.2] **Yuanchun Li**, Yao Guo, and Xiangqun Chen. 2016. PERUIM: understanding mobile application privacy with permission-UI mapping. In Proceedings of the 2016 ACM International Joint Conference on Pervasive and Ubiquitous Computing (UbiComp, Best Paper Honorable Mention Award)

[C.3] **Yuanchun Li**, Yao Guo, Junjun Kong and Xiangqun Chen. 2015. Fixing Sensor-Related Energy Bugs Through Automated Sensing Policy Instrumentation. IEEE/ACM International Symposium on Low Power Electronics and Design (ISLPED)

- **Posters and Demos**

[P.1] **Yuanchun Li**, Ziyue Yang, Yao Guo and Xiangqun Chen. 2017. DroidBot: A Lightweight UI-Guided Test Input Generator For Android. 2017 IEEE/ACM 39th International Conference on Software Engineering Companion (ICSE-C)

Software Artifacts

- DroidBot – A Lightweight UI-Guided Test Input Generator
  - https://github.com/honeynet/droidbot
- PrivacyStreams – A Framework for Easy and Privacy-Aware Personal Data Processing
  - https://github.com/PrivacyStreams/PrivacyStreams

Teaching Experience

- Teaching Assistant, Operating System Labs (honor track) — Fall 2014, Spring 2015, Fall 2015, Spring 2016
- Teaching Assistant, Compiler Techniques — Spring 2015, Spring 2016
- Teaching Assistant, Introduction to Computer Systems — Fall 2013, Fall 2014

Languages and Skills

- Language – Chinese (Mandarin) – Native
- Language – English – Professional working proficiency
- Programming Languages – Python, Java, C++, JavaScript, HTML, Assembly, PHP, SQL, Lisp
- Techniques – Program analysis, Android reverse engineering, machine learning