

# Suwen Zhu

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## EDUCATION

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**PhD Candidate, Computer Science** August 2013 - Present  
Stony Brook University, *Stony Brook, NY* GPA: 3.74/4.0  
Develop novel interactive systems on mobile/VR platforms advancing efficiency and usability.  
*Advisor:* Assistant Professor Xiaojun Bi

**BEng, Computer Science** September 2009 - July 2013  
Central University of Finance and Economics, *Beijing, China* GPA: 95/100

## EXPERIENCE

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**Research Assistant** August 2016 - Present  
Human-Computer Interaction Lab, Stony Brook University, *Stony Brook, NY*  
- Designed a dynamic gesture-based text entry system for remote interaction.  
- Developed a framework that uses mathematical models to optimize the design of multi-letter key layouts.  
- Studied the interaction behaviors of various user groups including seniors and motor-impaired adults.  
- Presented techniques to improve finger selection accuracy on mobile devices.

**Software Engineering Intern** May 2016 - September 2016  
Google, Android UX/Research with Xiaojun Bi and Shumin Zhai, *Mountain View, CA*  
- Conducted empirical studies to understand users' touch typing behaviors on smartphones.  
- Developed an invisible touchscreen keyboard prototype on the Android platform.

**Teaching Assistant/Guest Lecturer** August 2013 - December 2018  
Stony Brook University, *Stony Brook, NY*  
- Designed course materials and gave lectures on topics on mobile human-computer interaction.  
- TA'ed five courses on human-computer interaction, network/system security, and database systems.

**Research Assistant** January 2014 - December 2015  
RiS3 Lab, Stony Brook University, *Stony Brook, NY*  
- Developed tools to enable customizable, module-level security enforcement for Android applications.

## SKILLS

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**Programming Languages:** Java, Python, R, C#, C, Shell, C++  
**Libraries and Tools:** Android, Unity Engine, L<sup>A</sup>T<sub>E</sub>X

## PUBLICATIONS

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- [7] **Suwen Zhu**, Jingjie Zheng, Shumin Zhai, Xiaojun Bi. i'sFree: Eyes-Free Gesture Typing via a Touch-Enabled Remote Control. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI '19).
- [6] **Suwen Zhu**, Tianyao Luo, Xiaojun Bi, and Shumin Zhai. Typing on an Invisible Keyboard. In Proceedings of the 2018 CHI Conference on Human Factors in Computing Systems (CHI '18).
- [5] Ryan Qin<sup>1</sup>, **Suwen Zhu**, Yu-Hao Lin, Yu-Jung Ko, and Xiaojun Bi. Optimal-T9: An Optimized T9-like Keyboard for Small Touchscreen Devices. In Proceedings of the 2018 ACM International Conference on Interactive Surfaces and Spaces (ISS '18).  
**Best Paper Honorable Mention**

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<sup>1</sup>Ryan Qin is a high-school student supervised by Suwen Zhu.

- [4] Jian Xu, **Suwen Zhu**, Aruna Balasubramanian, Xiaojun Bi, and Roy Shilkrot. Ultra-Low-Power Mode for Screenless Mobile Interaction. In Proceedings of the 31st Annual ACM Symposium on User Interface Software and Technology (UIST '18).
- [3] Yu-Hao Lin, **Suwen Zhu**, Yu-Jung Ko, Wenzhe Cui, and Xiaojun Bi. Why Is Gesture Typing Promising for Older Adults?: Comparing Gesture and Tap Typing Behavior of Older with Young Adults. In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '18).
- [2] Qi Sun, Anjul Patney, Li-Yi Wei, Omer Shapira, Jingwan Lu, Paul Asente, **Suwen Zhu**, Morgan Mcguire, David Luebke, and Arie Kaufman. Towards Virtual Reality Infinite Walking: Dynamic Saccadic Redirection. ACM Trans. Graph (SIGGRAPH 2018).
- [1] **Suwen Zhu**, Long Lu, and Kapil Singh. CASE: Comprehensive Application Security Enforcement on COTS Mobile Devices. In Proceedings of the 14th Annual International Conference on Mobile Systems, Applications, and Services (MobiSys '16).

## SERVICES

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### Peer Reviews

- ACM Conference on Human Factors in Computing Systems (CHI)

### Student Volunteer

- ACM CHI '19

## AWARDS

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### Best Paper Honorable Mention

2018

ACM ISS '18

### Stony Brook Computer Science Fellowship

2013-2014

Stony Brook University, *Stony Brook, NY*