

# Suwen Zhu

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## EDUCATION

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**Stony Brook University, Stony Brook, NY**

August 2013 - Present

PhD Candidate, Computer Science, GPA: 3.74/4.0

Develop intelligent interactive techniques and systems for touch surfaces. *Advisor:* Prof. Xiaojun Bi

**Central University of Finance and Economics, Beijing, China**

September 2009 - July 2013

B.Eng., Computer Science, GPA: 95/100, Honor Graduate of Beijing

## EXPERIENCE

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**Research Assistant**

August 2016 - Present

Human-Computer Interaction Lab, Stony Brook University, *Stony Brook, NY*

- Developed an optimization framework for virtual keyboard layout design.
- Proposed principles to improve finger selection accuracy on touch surfaces.
- Designed and developed a dynamic gesture-based text entry system for interaction on remote displays.
- Investigated the interaction behaviors of various user groups including seniors and motor-impaired adults.

**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, JavaScript, C#, C, C++, Shell, SQL, HTML

**Data analysis and modeling::** Python, R

**Libraries and tools:** Android, Unity Engine, Google Cloud Platform

## PUBLICATIONS

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- [8] **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).
- [7] **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).
- [6] Ryan Qin\*, **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). (\* Ryan Qin is a high-school student supervised by Suwen Zhu.)  
**Best Paper Honorable Mention**

- [5] 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).
- [4] 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).
- [3] 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).
- [2] Ryan Qin, **Suwen Zhu**, Yu-Hao Lin, Yu-Jung Ko, Xiaojun Bi. Computational Layout Design for Keyboards with Multi-Letter Keys. MobileHCI 2018 Workshop on Socio-Technical Aspects of Text Entry.
- [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)
- ACM Journal on Interactive, Mobile, Wearable and Ubiquitous Technologies (IMWUT)
- ACM SIGCHI Symposium on Engineering Interactive Computing Systems (EICS)
- ACM Symposium on Computer-Human Interaction in Play Companion (CHI PLAY)
- ACM Symposium on Spatial User Interaction (SUI)
- ACM Conference on Interactive Surfaces and Spaces (ISS)

### 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*