Suwen Zhu

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EDUCATION

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

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

Programming Languages: Java, Python, R, C#, C, Shell, C++
Libraries and Tools: Android, Unity Engine, LaTeX

PUBLICATIONS

[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).
Selected in CHI 2018 Teaser Video

[5] Ryan Qin[1], **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

[1] Ryan Qin is a high-school student supervised by Suwen Zhu.

Interactive Surfaces and Spaces (ISS '18).
Best Paper Honorable Mention

[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

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

Student Volunteer
- ACM CHI '19

AWARDS

Best Paper Honorable Mention 2018
ACM ISS '18

Stony Brook Computer Science Fellowship 2013-2014
Stony Brook University, *Stony Brook, NY*