Suwen Zhu

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https://suwzhu.github.io/

EDUCATION

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

Research Assistant August 2016 - Present
Human-Computer Interaction Lab, Stony Brook University, *Stony Brook, NY*
- Conducted perceptual studies on redirected VR walking: a system which leverages saccadic suppression to change VR users' walking paths without being noticed.
- Explored an Unity and Android based system for efficient text entry in Augmented Reality.
- Applied natural language processing (NLP) techniques to build multi-modal text entry systems.
- Designed and developed a dynamic gesture-based text entry system for interaction on remote displays.
- Developed an optimization framework for virtual keyboard layout design.
- Implemented accessible interaction systems for seniors and people with visual/motor impairments.

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 skills: Java, C++, C#, SQL, XML, JavaScript, HTML, CSS
Data analysis and modeling: Python, R, Matlab
Systems and tools: Linux, Android, Git, Unity Engine, GCP, Gradle

PUBLICATIONS

[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] 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).

[5] 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

[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] 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

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

Best Paper Honorable Mention 2018
ACM ISS '18

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