Suwen Zhu

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EDUCATION

Stony Brook University, *Stony Brook, NY* August 2013 - December 2019 (expected)
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 (Rank 1/32), Honor Graduate of Beijing

EXPERIENCE

Research Assistant January 2014 - Present
Human-Computer Interaction Lab, Stony Brook University, *Stony Brook, NY*
- Applied natural language processing (NLP) techniques to develop multi-modal text entry systems.
- Designed and developed a gesture-based text entry system on Android remote displays and AR.
- Developed a machine learning based framework to improve command input accuracy and optimize UI layout.
- Developed tools to enable customizable, module-level security enforcement for Android applications.
- Implemented accessible interaction systems for seniors and people with visual/motor impairments.
- Conducted perceptual studies on redirected VR walking system which leverages saccadic suppression.

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

SKILLS

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

PUBLICATIONS

[7] **Suwen Zhu**, Jingjie Zheng, Shumin Zhai, Xiaojun Bi. i'sFree: Eyes-Free Gesture Typing via a Touch-Enabled Remote Control. 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. 2018 CHI Conference on Human Factors in Computing Systems (CHI '18).

[5] 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. SIGGRAPH 2018.

[4] Ryan Qin*, **Suwen Zhu**, Yu-Hao Lin, Yu-Jung Ko, and Xiaojun Bi. Optimal-T9: An Optimized T9-like Keyboard for Small Touchscreen Devices. 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

[3] 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).

[2] 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).

[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).