Yuan Ren

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EDUCATION

Ph.D Student, Electrical Engineering & Computer Science Sep. 2019 - Now
University of California, Merced, CA
Research Area: Interaction & Input on Wearable Devices, Haptics Feedback

Master of Science, Computer Science Jan. 2015 - Dec. 2016
University of Southern California, Los Angeles, CA

Bachelor of Engineering, Software Engineering Sep. 2010 - Jul. 2014
Beijing Jiao Tong University, Beijing, China

INTERNSHIP

Google: Software Engineering Intern May. 2022 - Aug. 2022
- Designed and implemented a prototype that enable bidirectional translation experience on AR glasses and its companion phone for a 1:1 conversation scenario
- Conducted a pilot study to evaluate the prototype with Google Translate conversation mode as the baseline
- The results showed our prototype. The result showed that our prototype required less work load, maintain a more fluent conversation flow and have a slightly less perceived translation delay than Google Translate.

PUBLICATION

[1] **Yuan Ren**, Ahmed Sabbir Arif. 2023. **Investigating a Force-Based Selection Method for Smartwatches in a 1D Fitts' Law Study and Two New Character-Level Keyboards**. In the 17th International Conference on Tangible, Embedded, and Embodied Interaction (TEI 2023). ACM, New York, NY, USA, to appear.

[2] **Yuan Ren**, Ahmed Sabbir Arif. 2021. **Stepper, Swipe, Tilt, Force: Comparative Evaluation of Four Number Pickers for Smartwatches**. Proc. ACM Hum.-Comput. Interact. 5, ISS, Article 500 (November 2021), 21 pages. **(Honorable Mention Award)**

[3] Tafadzwa Joseph Dube, **Yuan Ren**, Hannah Limerick, I. Scott MacKenzie, Ahmed Sabbir Arif. 2022. **Push, Tap, Dwell, and Pinch: Evaluation of Four Mid-Air Selection Methods Augmented with Ultrasonic Haptic Feedback**. Proc. ACM Hum.-Comput. Interact. 6, ISS, Article 565 (December 2022), 19 pages.

[4] Ghazal Zand, **Yuan Ren**, Ahmed Sabbir Arif. 2022. **TiltWalker: Operating a Telepresence Robot with One-Hand by Tilt Controls on a Smartphone**. Proc. ACM Hum.-Comput. Interact. 6, ISS, Article 572 (December 2022), 26 pages.

RESEARCH PROJECTS

Stepper, Gesture, Tilt, Force: Comparative Evaluation of Four Number Pickers for Smartwatches Mar. 2019 - Mar. 2020
- Presented three new methods for picking numbers on smartwatches by performing directional swipes, twisting the wrist, and varying contact force on the screen.
- Conducted comparative user studies evaluate three new methods with native Apple picker.

A Force-Based Selection Method for Smartwatches Investigating a Force-Based Selection Method for Smartwatches in a 1D Fitts' Law Study and Two New Character-Level Keyboards April. 2020 - May 2022
- Proposed layered miniature keyboard leveraging force to input non-dictionary word.
- Enabled word-level, character-level and hybrid input methods to support richer input experience.

AWARDS & SCHOLARSHIPS

Summer EECS Bobcat Travel Fellowship at UC Merced 2022
Summer EECS Bobcat Summer Fellowship at UC Merced 2020

SKILLS

Programming Language: Java, Python, JavaScript, C
Web Technologies: Spring, Django, React, Redux, Node.js