

Zhen Li

PERSONAL DATA

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EDUCATION

(Expected: Mar 2022) Doctor of Philosophy in COMPUTER SCIENCE
University of Toronto, Toronto, Canada
JUNE 2017 Master of Science in COMPUTER SCIENCE
University of Toronto, Toronto, Canada
AVERAGE GRADE: A+
JULY 2015 Bachelor of Engineering in COMPUTER SCIENCE
Tsinghua University, Beijing, China
GPA: 92/100 | RANK: 4/123

PUBLICATIONS

Zhen Li, Joannes Chan, Joshua Walton, Hrvoje Benko, Daniel Wigdor, and Michael Glueck. 2021. Armstrong: An Empirical Examination of Pointing at Non-Dominant Arm-Anchored UIs in Virtual Reality. In *SIGCHI Conference on Human Factors in Computing Systems (CHI '21)*, May 08-13, 2021, Yokohama, Japan. <https://doi.org/10.1145/3411764.3445064>

Mingming Fan, **Zhen Li**, and Franklin Mingzhe Li. 2020. Eyelid Gestures on Mobile Devices for People with Motor Impairments. In *the 22nd International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '20)*, October 26–28, 2020, Virtual Event, Greece. <https://doi.org/10.1145/3373625.3416987>

Zhen Li, Mingming Fan, Ying Han, and Khai N. Truong. 2020. iWink: Exploring Eyelid Gestures on Mobile Devices. In *1st International Workshop on Human-centric Multimedia Analysis (HuMA '20)*, October 12, 2020, Seattle, WA, USA. <https://doi.org/10.1145/3422852.3423479>

Zhen Li, Michelle Annett, Ken Hinckley, Karan Singh and Daniel Wigdor. 2019. HoloDoc: Enabling Mixed Reality Workspaces that Harness Physical and Digital Content. In *SIGCHI Conference on Human Factors in Computing Systems Proceedings (CHI '19)*, May 4-9, 2019, Glasgow, Scotland UK. <https://doi.org/10.1145/3290605.3300917>

Zhen Li, Michelle Annett, Ken Hinckley and Daniel Wigdor. 2019. SMAC: A Simplified Model of Attention and Capture in Multi-Device Desk-Centric Environments. In *Proceedings of the ACM on Human-Computer Interaction (EICS '19)*, issue EICS, Article 2 (June 2019). <https://doi.org/10.1145/3300961>

Weinan Shi, Chun Yu, Xin Yi, **Zhen Li**, and Yuanchun Shi. TOAST: Ten-Finger Eyes-Free Typing on Touchable Surfaces. In *Proceedings of the ACM on Interactive, Mobile, Wearable, and Ubiquitous Technologies (UBICOMP '18)*, Vol. 2, No. 1, Article 33 (March 2018). <https://doi.org/10.1145/3191765>

Julian Ramos, **Zhen Li**, Johana Rosas, Nikola Banovic, Jennifer Mankoff, and Anind Dey. Keyboard Surface Interaction: Making the Keyboard into a Pointing Device. Jan 2016. <http://arxiv.org/abs/1601.04029>

INTERNSHIPS

- APR-SEP 2019 | **Armstrong: An Empirical Examination of Pointing at Non-Dominant Arm-Anchored UIs in Virtual Reality**
Supervised by Dr. Michael Glueck, **Chatham Labs** (now acquired by FRL)
Investigated the performance and limitations of arm-anchored 3D UIs in VR environments and developed a Unity plugin for 3D UI designers.
Research outcomes published at CHI 2021.
- JUL-SEP 2014 | **Keyboard-Surface Interaction: Using the Keyboard's Surface as a Pointing Device**
Supervised by Prof. Anind K. Dey, HCI Institute, **Carnegie Mellon University**
Designed the first stage of the user study and contributed to the gesture recognition using Wii Remote sensors.

SELECTED PROJECTS

Armstrong: An Empirical Examination of Pointing at Non-Dominant Arm-Anchored UIs in Virtual Reality (CHI '21)

Evaluated the performance and limitations of arm-anchored 3D UIs in VR environments through a bimanual pointing study and developed a series of design guidelines demonstrated through a Unity plugin to enable designers to create performance-optimized UI layouts.

HoloDoc: Enabling Mixed Reality Workspaces that Harness Physical and Digital Content (CHI '19)

Probed how users perform document-intensive analytical tasks when both physical and digital versions of documents were available and developed a mixed reality system that augments physical artifacts with rich interactions and dynamic virtual content.

SMAC: A Simplified Model of Attention and Capture in Multi-Device Desk-Centric Environment (EICS '19)

Explored the device ecologies used in desk-centric environments and compiled the insights observed into a simplified model of attention and capture that emphasized the role of *user-device* proxemics, as mediated by hand placement, gaze, and relative body orientation, as well as *inter-device* proxemics.

SCHOLARSHIPS AND AWARDS

- MAR 2015 ST ENGINEERING China Scholarship
OCT 2014 Tsinghua – DONGSHI Dongfang Scholarship
AUG 2014 GOOGLE Excellence Scholarship
MAR 2014 ST ENGINEERING China Scholarship
OCT 2013 Tsinghua – ZHENG Geru Scholarship
MAR 2013 ST ENGINEERING China Scholarship
OCT 2012 Tsinghua – ZHANG Ronghua Scholarship

TEACHING

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|-------------------------|--|
| WINTER/FALL 2021 | Teaching Assistant INTRODUCTION TO COMPUTER SCIENCE, CSC108 Department of Computer Science, University of Toronto |
| SUMMER/FALL 2020 | |
| WINTER/FALL 2019 | |
| WINTER 2016 | |
| WINTER 2020 | Teaching Assistant THE DESIGN OF INTERACTIVE COMPUTATIONAL MEDIA, CSC318 Department of Computer Science, University of Toronto |
| WINTER/SUMMER/FALL 2018 | |
| WINTER/FALL 2017 | Teaching Assistant INTRODUCTION TO COMPUTER SCIENCE, CSC148 Department of Computer Science, University of Toronto |
| SUMMER/FALL 2016 | |
| FALL 2011 | |
| | Teaching Assistant FUNDAMENTALS OF PROGRAMMING, No.30240233 Department of Computer Science and Technology, Tsinghua University |