

MINGRUI ZHANG

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EDUCATION

- University of Washington, Seattle** *Sep. 2017 - Present*
Ph.D. student, the Information School
Advisor: Jacob O. Wobbrock
- Tsinghua University, Beijing** *Aug. 2013 - Jul. 2017*
Bachelor of Engineering, Department of Computer Science and Technology
GPA 91.0 (Rank 13/127)
Minor in journalism
- Massachusetts Institute of Technology, Boston** *Jun. 2016 - Sep. 2016*
Visiting student, the Fluid Interfaces Group, Media Lab
Advisor: Pattie Maes
- The Chinese University of Hong Kong, Hong Kong** *Sep. 2015 - Dec. 2015*
Exchange student, Department of Computer Science and Engineering

RESEARCH INTEREST

Human Computer Interaction
Text Entry / Input Method / Natural User Interface

PUBLICATIONS

- C.4 **Mingrui Ray Zhang**, Shumin Zhai, Jacob O. Wobbrock. (2019). **Text entry throughput: Towards unifying speed and accuracy in a single performance metric.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 19). New York: ACM Press. To appear.
- C.3 Alexis Hiniker, Jon Froehlich, **Mingrui Ray Zhang**, Erin Beneteau. (2019). **Anchored Audio Sampling: A Seamless Method for Exploring Childrens Thoughts and Reactions During Deployment Studies.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 19). New York: ACM Press. To appear. *Best Paper Award*
- C.2 Erin Beneteau, Olivia K. Richards, **Mingrui Ray Zhang**, Julie A. Kientz, Jason Yip, Alexis Hiniker. (2019). **Communication Breakdowns Between Families and Alexa.** Proceedings of the ACM Conference on Human Factors in Computing Systems (CHI 19). New York: ACM Press. To appear.
- C.1 Xin Yi, Chun Yu, **Mingrui Zhang**, Sida Gao, Ke Sun, Yuanchun Shi. (2015). **ATK: Enabling Ten-Finger Freehand Typing in Air Based on 3D Hand Tracking Data.** In Proceedings of the 28th Annual ACM Symposium on User Interface Software Technology (UIST '15). ACM, New York, NY, USA, 539-548.

HONORS & AWARDS

- Best Paper Award, ACM CHI** *2019*
- Excellent graduate of the CST Department, Tsinghua** *2017*
- The National Scholarship of China (Top 1%)** *2016*
- 1st winner of the National Database Conference Cup** *2016*
- Best note of Youdao Course Note Competition** *2015*

RESEARCH EXPERIENCE

Fluid Interfaces Group, MIT Media Lab

Jun. 2016 - Sep. 2016

Visiting Student. Developed the hardware and algorithm of project Fluxa. Led the project Shoulder Muscle-Computer Interface. Programmed with Myo armband. Signal processing and pattern recognition with EMG.

Multimedia Lab, the Chinese University of Hong Kong

Jun. 2015 - Aug. 2015

Research Assistant. Write experimental codes on machine learning, modified the CXXNET (a framework of deep learning). code and revised the convolution layer of it. The result proved not applicable.

WORK EXPERIENCE

Momenta.ai Inc. Beijing

Dec. 2016 - Jun. 2017

Research Intern. Research on road segmentation. Modify Full Convolutional Network base model on Caffe and PyTorch. Boost recall accuracy about 5%. Speed up framework from 8fps to 100fps.

MailTime Inc. Beijing

Feb. 2016 - Jun. 2016

iOS Intern. Redesigned interaction logic and UI, user tutorial and feedback, increased 25% of the user retention.

Chestnut Tech Inc. Beijing

Oct. 2014 - Jan. 2016

Co-founder, iOS Developer. Main developer of Parocam application, Face transform algorithm, UI design and product operation.

PROJECTS

PAROCAM IOS APP @Chestnut Tech Inc.

Nov.2014 - Jan.2016

- A funny iOS app transforming images of human faces (such as stretching the mouth) in real time, using multithread face-detection tech based on GPU.
- Developed functions of Chat Bubbles, Video Merge.
- 20,000 downloads in App Store (with overall rating 4+).

SPAM DETECTING ON Q-A COMMUNITY @NDBC CUP16

May. 2016 - Jun. 2016

- Designed a novel approach to detect spam answers in Q-A community.
- Using CNN and Word2Vec, with additional NLP data pre-processing. F-value 66.0%.
- Win first place in the competition.

PERSPECTIVE TRACKING VIDEO CHATTING

Jan. 2017 - Jun. 2017

- Video Communication system supporting perspective tracking to imitate face-to-face scenario.
- Improved Head tracking, panorama camera used to capture First-person view on the remote side. Made with Unity.

TEACHING

INFO 360 Design Thinking, UW Seattle

2017 Fall, 2018 Winter

INFO 498 Rapid Prototyping, UW Seattle

2018 Spring

INFO 449 iOS Programming, UW Seattle

2019 Winter

PROFESSIONAL SERVICE

Peer Reviewer

CHI 19, UIST 19

SKILLS

Programming

C/C++/C/Java/JavaScript/MATLAB/Objective-C/Python

Journalism

Chinese writing/Interview

Art & Media

Adobe Photoshop/Adobe Premiere/Final Cut Pro