ZHUOHAO ZHANG

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EDUCATION

University of Illinois at Urbana-Champaign — Urbana-Champaign, USA
M.S. in Computer Science — Aug. 2019 – May. 2021 (Expected)

- GPA: Unavailable for now
- Advisor: Prof. Ranjitha Kumar at Data Driven Design Group

Zhejiang University — Hangzhou, China
B.Eng. in Computer Science and Technology (**with Honors**) — Sept. 2015 – Jun. 2019

- GPA: 3.88/4.00, major GPA: 3.93/4.00 (ranked **top 5%** of 181 students)
- 3 Successive Years of **First-Class Scholarship**

PUBLICATIONS

1. **Zhuohao Zhang**, Xiyuan He*. *GPK: An Efficient Special Symbol Input Method for Keyboards Using Glide*. In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI 2019)
2. Lei Shi, Holly M. Lawson, **Zhuohao Zhang**, Shiri Azenkot. *Designing interactive 3D printed models with Teachers of the Visually Impaired.* In Proceedings of the 2019 CHI Conference on Human Factors in Computing Systems (CHI 2019)
3. Lei Shi, **Zhuohao Zhang**, Shiri Azenkot. *A Demo of Talkit++: Interacting with 3D Printed Models Using iOS Devices*. In Proceedings of the 20th International ACM SIGACCESS Conference on Computers and Accessibility (ASSETS '18)

* indicates equal contribution as first author.

RESEARCH & PROJECT HIGHLIGHT

University of Illinois at Urbana-Champaign (Data Driven Design Group) — Urbana, IL
Research Intern, Mentor: Prof. Ranjitha Kumar — 2019 – 2020 (Expected)
Understanding the Efficiency of Emoji Sequences Using Information Theory

- Currently heading a group developing and maintaining an iOS application "Opico" released in App Store, a social media mobile app of more than 1000 users allowing users to create and share reactions through Emoji
- Conducted information theory to extract information encoded in emoji sequences and empirically measure properties from emoji information channel

Cornell University (Enhancing Ability Lab, Cornell Tech) — New York City, USA
Research Intern, Mentor: Prof. Shiri Azenkot — 2017 – 2018
Design Interactions for 3D Printed Models for Blind People

- Published two papers at top conferences (ACM CHI 2019 & ACM ASSETS 2018)
- Designed an iOS application "Talkit++" to augment fabricated 3D models for blind people; Deployed in real use at several special education schools; Project released at: https://www.interactiveprintedmodels.com
- Applied OpenCV based algorithms to detect 3D models and hand gestures; Customized native iOS to enable speech recognition and text-to-speech; Based on 3D model's position and user's input, Talkit++ utilized speaking textual information, playing audio recordings, and displaying visual animations for blind people

Zhejiang University (CAD&CG State Key Lab) — Hangzhou, China
Research Assistant, Advisor: Prof. Yingcai Wu, Director of Interactive Data Group — 2017 – 2018
Augmented Reality-based Collaborative Visual Analytics System

- Devised a VR application in HTC Vive using 3D urban data of housing in Manhattan; Integrated visual data analytics and scalable interactions; Registered as provincial innovation project and managed a research team of four
- Adapted space partition, cluster analysis and data visualization techniques to preprocess 3D data points, and enabled collaborative immersive wandering experiences in a city-level

Zhejiang University (Dept. of Computer Science) — Hangzhou, China
Research Assistant to Prof. Qingsong Shi, Director of Architecture Lab — Sept. 2016 – Jun. 2018
Computer System Integration

- Assembled CPU and hardware system including Single-Cycle, Multi-Cycle, Pipeline CPU, and System-on-Chips
- Programmed applications of 2D games and mini-shell based on an integrated hardware system

TALK

ACM CHI 2019 Glasgow, UK
Presenter at Student Research Competition 4th May. 2019 – 9th May. 2019

- Title: Design of GPK, An Efficient Input Method Using Keyboard

Tactile Graphics in Education and Career Symposium Baltimore, USA
Presenter at National Federation of the Blind, Jernigan Institute 11th Oct. 2018 – 12th Oct. 2018

- Presented with Ph.D. Lei Shi from Cornell University
- Title: Sensables: 3D Printed Models for Visually Impaired Students

COURSEWORK (COMPLETION & IN PROGRESS)

Artificial Intelligence & Big Data: Introduction to Artificial Intelligence, Database Systems, Introduction to Data Mining, Human-computer Interaction for Machine Learning, Data Science

Algorithms and Programming: Advanced Data Structures and Algorithm Analysis, Optimization Algorithms, Programming Principle, Java Application Design, B/S Software Design

Computer System and Network: Application of Wireless Network, Digital Logic Design, Computer Organization, Computer Architecture, Operation System, Computer Hardware System Based Practice, Information Security

Mathematics and Statistics: Discrete Mathematics, Linear Algebra, Probability and Mathematical Statistics, Computational Methods

Interdisciplinary Computer Science: Computer Graphics, Information Visualization, Design Thinking

WORK EXPERIENCE

University of Illinois at Urbana-Champaign, Dept. of Computer Science Urbana-Champaign, USA
Teaching Assistant for *CS 107, Data Science Discovery* Aug. 2019 – Now

Zhejiang University, Dept. of Computer Science and Technology Hangzhou, China
Teaching Assistant for several computer science courses on hardware Sept. 2017 – Jun. 2018

Zhejiang University, Dept. of Computer Science and Technology Hangzhou, China
Teaching Assistant for *Introduction to Computer Systems* Jul. 2017

SELECTED AWARDS AND HONORS

- ACM CHI Student Research Competition, Second Prize 2019
- First-class Scholarship (top 3% in ~850 students) 2016&2017&2018
- The Outstanding Student Title (top 3% in ~850 students) 2016
- Zhejiang Provincial Government Scholarship 2016

ADDITIONAL INFORMATION

Academic Services

- Reviewing: CHI 2019 Late Breaking Work

Interests

- 2 years of experience in designing public posters and advertisement banners
- 12 years of experience in Chinese Calligraphy, won 1st Prize of 1st National Calligraphy Competition

Computer and Language Skills

- iOS, AR frameworks, Unity, C/C++, Java, Python, JavaScript, HTML, CSS, D3.js, SQL, VHDL
- Machine Learning, Information Retrieval, Human-centered AI, Optimization
- TOEFL 107 (Speaking 26/30, Writing 30/30) IELTS 8.0 (Writing 8.0/9)