

# ZHUOHAO ZHANG

Honors Class of Computer Science  
Chu Kochen Honors College, Zhejiang University, P.R. China  
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## EDUCATION

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### Zhejiang University

Hangzhou, China

B.Eng. in Computer Science (with Honors)

Sept 2015 – June 2019

- GPA: 3.87/4.00, major GPA: 3.95/4.00 (rank top 5% of 181 students)
- Selected to Chu Kochen Honors College (2 of ~100 participants, on basis of research performance)
- 3 Successive Years of First-Class Scholarship
- Harvard University, Visiting Student; UC Davis, Research Assistant; Cornell Tech, Visiting Scholar

## PUBLICATIONS

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1. Tianxiang Gao, Xi Yang, **Zhuohao Zhang**, Linlin Li, Zhou Zhao. *Relation Extraction for Chinese Medicine Using ResCNN and Attention*. Under review of the 33<sup>rd</sup> National Conference on Artificial Intelligence (AAAI'19), Student Abstract
2. Lei Shi, Holly M. Lawson, **Zhuohao Zhang**, Shiri Azenkot. *Designing interactive 3D printed models with Teachers of the Visually Impaired*. Under review 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). ACM, Galway, Ireland. (to appear)

## RESEARCH EXPERIENCE & PROJECTS

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### Zhejiang University (CAD&CG State Key Lab)

Hangzhou, China

Research Assistant to Prof. Yingcai WU, Director of Vis Group

Apr. 2017 – Present

#### Augmented Reality-based Collaborative Visual Analytics System

- Registered as Provincial Undergraduate Training Program for Innovation and Entrepreneurship
- Acted as the leader of provincial innovation project. Applied the AR-based technology to enable collaborative visualization on a City-Scale of thousands of buildings. Built a prototype and passed the final defense

### Cornell University (Jacobs Technion-Cornell Institute, Cornell Tech)

New York City, USA

Research Assistant to Prof. Shiri Azenkot

Oct. 2017 – Dec. 2018

#### Design Interactions for 3D Printed Models for Blind People

- Responsible for system implementing and paper writing.
- Published a demo paper in **ASSETS'18** and submitted a full paper to **ACM CHI'19**
- Used vision based methods to design interactive 3D tactile models to enable people with visual impairments to access information equally. Designed several workshops for teachers of the visually impaired

### University of California, Davis (VIDI Lab, Dept. of Computer Science)

Davis, USA

Research Assistant to Prof. Kwan-Liu MA, Director of UC Davis Center for Visualization

Jul. 2018 – Oct. 2018

#### Interactive AR Visualization System Between Large Display Walls and Mobile Devices

- Summer Internship for designing new interactions between large display walls and mobile devices
- Will submit a full paper to **IEEE VR'19**
- Used computer vision based methods to build new interactions of big screen so that users can free their hands off the keyboard and the mouse. Implemented AR-based methods to enable more possibilities of exploring the whole visualized system

### Hong Kong University of Science and Technology (Dept. of Computer Science Engineering)

HK, China

Remote Collaborator with PhD candidates under the instruction of Prof. Huamin QU

May 2018 – Feb. 2019

#### Design Interactive System Between Smart Watch and Smartphone

- Remotely worked together to design AR-based interactions of daily wearable devices.
- Responsible for researching and paper writing.

**California Institute of Technology, Hacktech 2018**

Pasadena, USA

Project Leader

Mar. 2018

**A Smart Menu that Enables Foreign Visitors to Access Eating Information Equally**

- Hackathon project designed in continuous 36 hours
- Offered to attend Microsoft Imagine Cup 2018, US National Finals
- Developed a usable system using multiple products from Amazon, Apple, Google, etc.

**Zhejiang University (Dept. of Computer Science)**

Hangzhou, China

Research Assistant to Prof. Qingsong SHI, Director of Architecture Lab

Sept. 2016 – Jun. 2018

**CPU and Operating System Design From Scratch on Hardware**

- Responsible for CPU design and hardware system design and optimization with fellow students through 5 courses of 20 credits
- Designed Single-Cycle, Multi-Cycle, and Pipeline CPU, helped design a System-on-Chips
- Contributed to an operation system and some basic applications built from scratch on hardware

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**TALK****Tactile Graphics in Education and Career Symposium**

Baltimore, USA

Presenter, at National Federation of the Blind Jernigan Institute

11<sup>th</sup> Oct. 2018 – 12<sup>th</sup> Oct. 2018

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

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**WORK EXPERIENCE****Zhejiang University, Dept. of Computer Science and Technology**

Hangzhou, China

Teaching Assistant, for the course *Introduction to Computer Systems*

Jul. 2017

- TA to Visiting Professor Yale Patt from UT-Austin, member of National Academy of Engineering, University Distinguished Teaching Professor
- Assisted teaching a summer course for ~200 freshmen from Zhejiang University and other fellow universities
- Report to the professor and responsible for reinforcing lessons by reviewing every class, grading tests and homework, and giving instructions on experiments, all based on English

**Zhejiang University, Dept. of Computer Science and Technology**

Hangzhou, China

Teaching Assistant, for several computer science courses on hardware

Sept. 2017 – Jun. 2018

- TA to Prof. Qingsong SHI, for the course Digital Logic Design and Computer Organization
- Assisted project assignments teaching

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**SELECTED AWARDS AND HONORS**

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| • First-class Scholarship for Academic Excellence (top3% in ~850 students)             | 2016      |
| • The Outstanding Student Title (top3% in ~850 students)                               | 2016      |
| • Zhejiang Provincial Government Scholarship (top3%)                                   | 2016      |
| • Second Prize, Provincial Career Planning Competition (No.2)                          | 2016      |
| • First-class Scholarship, awarded for excellent performance in basic subjects (top5%) | 2017&2018 |
| • Third-class Scholarship for Academic Excellence                                      | 2017      |
| • Microsoft Imagine Cup 2018, United States National Finals Attendee                   | 2018      |

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**ADDITIONAL INFORMATION****Additional Professional and Extracurricular Experiences**

- Member of Student Association Union of Zhejiang University, Human Resources Dept.
- Operating Officer of Microsoft Student Club
- Manager of Technique Support Dept. in ZJU Yunfeng Career Planning Base
- Big Data Visualization Summit Forum 2017 in East China, Attendee

**Interests**

- 2-year experience of designing public posters and advertisement banners
- 12-year experience of Chinese Calligraphy, won 1<sup>st</sup> Prize of 1<sup>st</sup> National Calligraphy Competition

**Computer and Language Skills**

- iOS, AR related frameworks, C/C++, Java, Python, JavaScript, HTML, CSS, D3.js, MS Office, SQL, VHDL
- AI-related algorithms (Machine Learning, Deep Learning) and optimization algorithms
- TOEFL 107 (Speaking 26/30, Writing 30/30)