

Hao Ju

RESEARCH ASSISTANT

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Research Interests

Human Computer Interaction Wearables, Haptics, Usability

Education & Employment

City University of Hong Kong

RESEARCH ASSISTANT

- Collaborating with Dr. Kening Zhu

Hong Kong, P.R.China

Sept 2018 - Present

School of Electronic Engineering, UESTC (985,211)

B.ENG. IN ELECTRONIC INFORMATION

- GPA: 3.86/4, Average Score: 87.51/100, Ranking: 5/42
- Honorary Graduate of UESTC
- IELTS: Total 8.0; Reading 9.0, Listening 9.0, Speaking 8.0, Writing 6.5
- GRE: Total 326; Verbal 161, Quantitative 165, Analytical Writing 3.0

Chengdu, P.R.China

Sep. 2014 - July 2018

Shared Reality Lab, McGill University

MITACS GLOBALINK INTERN

- Supervised by Prof. Jeremy Cooperstock (<http://www.cim.mcgill.ca/jer/>)

Montreal, Canada

July 2017 - Oct. 2017

Ngee Ann Polytechnic

SHORT-TERM VISITING STUDENT

Singapore

May 2017

Siglent Co. Ltd.

INTERN

Shenzhen, P.R.China

Aug. 2016

Publications

Pressure or Movement? Usability of Multi-Functional Foot-Based Interfaces

SECOND AUTHOR

Sep. 2017

- Taeyong Kim, Hao Ju, and Jeremy Cooperstock. 2018. In proceedings of ACM SIGCHI Conference on Designing Interactive Systems (DIS) 2018. ACM. 1219-1227.

Research Projects

A Thermal-Based Displaying Device for the Visually Impaired

RESEARCH ASSISTANT

Hong Kong

Aug. 2018 - Present

- We are prototyping a thermal-based displaying device, set in the context of geographical education for the visually impaired schoolchildren. We are planning to investigate its usability (especially in picture displaying) compared with traditional Brailles.

Target Recognition and Tracking based on XGBoost (Thesis)

UNDERGRADUATE RESEARCHER, UESTC

Chengdu, China

Oct. 2017 - May 2018

- Developed a supervised learning based target tracking algorithm and estimated its performance versus traditional target tracking algorithms (filtering algorithm: Kalman, LSM, target co-relating algorithms: JPDA, NNJPDA). Implemented in MATLAB and Python
- Received as poster presentation for IET International Radar Conference 2018

Raising the Heat

Montreal, Canada

RESEARCH ASSISTANT, SHARED REALITY LAB, MCGILL UNIVERSITY

Sep. 2017 - Oct. 2017

- A following-up research of the UIST Student Innovation Contest 2016 project "Raising the Heat", where the possibility of using Electro-Muscular Stimulation to simulate a burning-hot temperature was explored. Hardware and firmware prototype enhanced for more precise experiment results.

Usability of Multi-Functional Foot-based Interfaces

Montreal, Canada

RESEARCH ASSISTANT, SHARED REALITY LAB, MCGILL UNIVERSITY

Jul. 2017 - Sep. 2017

- We compared the performance of two mainstream foot interaction methods (foot rocking and heel-pivoted rotation) in selection and parameter controlling tasks, set in the use case of a hands-free interface designed for seated musicians.

Data Secured USB Mass Storage Device

Chengdu, P.R.China

UNDERGRADUATE RESEARCHER, SCHOOL OF ELECTRONIC ENGINEERING, UESTC

Mar. 2017 - Present

- Developed a data secured USB Flash Disk capable of data encrypting, sending anti-losing alerts and data retrieving.
- Ranked 7th among 125 teams in the provincial final of the National 'Internet Plus' Innovation and Entrepreneurship Competition.

Network-based RF Device Analyzer

Chengdu, P.R.China

UNDERGRADUATE RESEARCHER, SCHOOL OF ELECTRONIC ENGINEERING, UESTC

Mar. 2016 - July 2016

- Developed a network-based RF device analyzer with 4 GHz bandwidth and 125 MHz baseband bandwidth based on Xilinx Virtex VC707.
- Awarded second prize of Southwest China in 2016 National College Student Smarter Connected System Innovation Competition

Honors and Awards

HONORS AND SCHOLARSHIPS

Mitacs Globalink Graduate Fellowship

CAD 15,000, GIVEN TO FORMER GLOBALINK RESEARCH INTERNS RETURNING TO CANADA FOR GRADUATE STUDIES

Honorary Graduate of UESTC

10%

Oct. 2017

Renmin Scholarship 2017

FIRST CLASS IN 2017, CNY 1,500 (USD 226)

Oct. 2017

National Internet Security Scholarship

CNY 30,000 (USD 4,556), 100 AMONG ALL UNDERGRADUATES AND GRADUATE STUDENTS IN CHINA PER YEAR

Aug. 2017

Jiuzhou Scholarship 2016

CNY 1,000 (USD 150), 2 PER SCHOOL PER YEAR

Sep. 2016

Renmin Scholarship 2015

THIRD CLASS, CNY 500 (USD 75)

Oct. 2015

AWARDS

2017 'Internet Plus' Innovation and Entrepreneurship Competition

SECOND PRIZE (PROVINCIAL LEVEL)

Jul. 2017

OpenHW 2016 National College Student 'Smarter Connected' System Innovation Competition

SECOND PRIZE OF SOUTHWEST CHINA AREA

Jul. 2016

National English Competition for College Students 2016

SPECIAL PRIZE IN NATIONAL FINAL (CLASS C, FOR NON-ENGLISH PROFESSIONALS), 0.1%

May. 2016

COMAP Interdisciplinary Contest In Modeling

HONORABLE MENTION, 30 %

Apr. 2016

Relevant Skills

Programming

C, C#, MATLAB, VHDL, LaTeX, Python

Tools

Altium Designer, Quartus II, VICON, Unity 3D, AutoCAD

Embedded Systems

Arduino, STM32, MCS 8051

Languages

Chinese (native), English (fluent, IELTS 8.0), French (basic, CEFR A1, certified by Alliance Française)