

# Hao Ju

UNDERGRADUATE STUDENT

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## Research Interests

**Electronic Engineering** Signal and Image Processing, Medical Application of Electronic Engineering, Human Computer Interaction

## Education

### School of Electronic Engineering, UESTC

Chengdu, P.R.China

B.ENG. IN ELECTRONIC INFORMATION

Sep. 2014 - Exp. Jul. 2018

- GPA: 3.85/4, Average Score: 87.22/100, Ranking: 5/42.
- Honorary Graduate of UESTC
- Mitacs Internship in McGill University, Canada
- Short term visiting student in Ngee Ann Polytechnic, Singapore
- 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

## Publications

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

SECOND AUTHOR

Sep. 2017

- Under review for Designing Interactive Systems(DIS'2018).

## Experience

### RESEARCH AND PROJECTS

#### Target Recognition and Tracking based on XGBoost

Chengdu, China

UNDERGRADUATE RESEARCHER, UESTC

Oct. 2017 - Exp. June. 2018

- In this project, a supervised learning based target tracking algorithm is to be developed, and the comparison and analysis of its performance with that of traditional target tracking algorithms (including filtering algorithms like Kalman and LSM, and target co-relating algorithms such as JPDA and NNJPDA) is expected to be made. The algorithm is to be implemented in MATLAB and Python

#### 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 was 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

- In this research, 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

- Participated in the development of a data secured USB Flash Disk capable of data encrypting, sending anti-losing alerts and data retrieving.
- This project 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

- Co-developed a network-based RF device analyzer with RF bandwidth of 4 GHz and baseband bandwidth of 125 MHz based on Xilinx Virtex VC707.
- Capable of performing verification of algorithm on linear digital pre-distortion as well as establishing behavioral model of RF amplifiers apart from characteristic analyzing.
- This project was awarded second prize of Southwest China Area in OpenHW 2016 National College Student 'Smarter Connected' System Innovation Competition

## OTHER EXPERIENCE

### Siglent Co. Ltd.

Shenzhen, P.R.China

INTERN

Aug. 2016

- Internship at the leading domestic oscilloscope manufacturer demonstrated the actual production process as well as the daily operation of a modern firm.

### Technology Association for School of Electronic Engineering

Chengdu, P.R.China

CORE MEMBER

Oct. 2014 - Dec. 2015

- A student association dedicated to circuit design and DIY and technology innovation.
- Worked mainly on hardware design and DIY (especially communication systems: infrared, FM, etc), with experience on C programming with micro-controllers Arduino, STC89C51 and STM32F101.

## 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

Applied in Jan. 2018, Pending

#### 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

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)

### Others

Violin (amateur since 2004, Grade 3 certified by Chinese Association of Musicians)