

# HAN LIU

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## EDUCATION

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| <b>University of Electronic Science and Technology of China</b><br>Communication Engineering<br>UESTC GPA: 3.76/4 | <i>Sept 2016 - Present</i> |
| <b>University of Glasgow</b><br>Electrical Engineering<br>UoG GPA: 20.2/22 (92.62/100)<br><b>Ranking: 2/132</b>   | <i>Sept 2016 - Present</i> |

## MAJOR HONORS & AWARDS

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- Second prize in 2019 Mathematical Contest in Modeling (Top 5% of all) *Apr 2019*
- Enterprise scholarship from Shenzhen Sekorm Advanced Technologies (Top 0.1% of all) *Oct 2018*
- National Encouragement Scholarship (Top 3% of all) *Oct 2018*
- Thanksgiving for Contemporary Scientists in China Scholarship (Top 0.5% of all) *Oct 2018*
- Dean's List Scholarship (Top 5% of all) *Oct 2018*
- National first prize in 2018 National Undergraduate Biomedical Engineering Innovation Design Competition (Only six teams in China) *Aug 2018*
- National Encouragement Scholarship (Top 3% of all) *Oct 2017*
- 1713 Leadership Scholarship (Top 3% of all) *Oct 2017*
- The fifth place in Microsoft Game Developer Contest (Top 0.1% of all) *Jul 2017*

## PUBLICATIONS

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- C. Zheng, H. Liu, M. Ge and Y. Liu, "A Novel Maze Representation Approach for Finding Filled Path of A Mobile Robot", accepted by *2019 International Conference on Computer, Network, Communication and Information Systems (CNCI 2019)*, May.2019.
- H. Luo, H. Liu, B. Zhang and K. Li, "Automatic Image Quality Assessment of Fetal Sonographic Image by Convolutional Networks", submitted to *Physics in Medicine & Biology*

## WORKING EXPERIENCE

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- Research intern in ECE department, Rutgers University *Jul 2019 - Sept 2019*
- Teaching assistant in Engineering Career Skills *Feb 2019 - Jun 2019*
- Teaching assistant in Communication Principles and Systems *Sept 2019 - Jan 2020*
- Research assistant in Center for Future Media, UESTC *Sept 2017 - Jan 2019*
- Research assistant in Innovative Developer Center, UESTC *Sept 2018 - present*

## MAJOR PROJECTS

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| <b>GPU Parallel Acceleration for Gaussian Process</b><br><i>Summer Research Project in Rutgers University</i> | <i>Jul 2019 - Sept 2019</i> |
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- It aims at optimizing the scalability of Gaussian Process based on fully utilizing GPU's parallel computing
- I am trying to design a new MVM algorithm to reduce the space and time complexity of existing methods

### **Table Information Extraction Based on PDFMiner**

*Team leader (4 members group)*

*Mar 2019 - Jun 2019*

- It aims at extracting the tabular data from the PDF file based on PDFminer automatically
- I was responsible for the algorithm design and programming implementation of content reordering after table extraction
- We have successfully accomplished this project and a paper is under preparation

### **Multifunctional Intelligent Mobile Rover Design**

*Team leader (8 members group)*

*Feb 2019 - Jun 2019*

- It aims at designing and assembling an automatic mobile rover to accomplish prescribed tasks including line tracing, color matching, ultrasonic ranging, etc
- I was responsible for managing and coordinating the work of the entire team and programming implementation of line tracing and ultrasonic ranging
- We have successfully completed the final presentation and obtained a high score on the project

### **Design of a Vision Protection Lamp Based on Binocular Ranging Algorithm**

*Core Member (3 members group)*

*Apr 2018 - Aug 2018*

- A new idea to develop a vision protection lamp which uses binocular ranging algorithm to measure the distance to determine the user's reading position
- I was responsible for algorithm design and implementation with python
- We have successfully applied for a national patent for invention

## **TECHNICAL STRENGTHS**

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- Programming Languages: Proficient in Python, Matlab, C/C++, Tex  
Also basic ability with: Assembly, VHDL
- Industry Software Skills: Matlab (Advanced), LaTeX (Advanced), Cadence ORCAD(Intermediate), LTspice (Intermediate), Vivado (Intermediate)

## **EXTRA-CURRICULAR**

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- Excellent graduation from Sunshine International Program 2018 *July 2018 - Aug 2018*
- Volunteer of IET 2018 Present Around The World Competition China Region Final *June 2018*
- Excellent International Volunteer in Sri Lanka *Jan 2018 - Feb 2018*
- Leadership Training Camp in University of Maryland, USA *July 2017 - Aug 2017*
- Member of Student Representative Council, Glasgow College, UESTC *July 2017 - Present*