

ZIJIAN LUO

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EDUCATION

National University of Singapore

Master of Science(Electrical Engineering)

Department of Electrical and Computer Engineering

Jan. 2021 - Present

GPA: 4.00/5.00

University of Electronic Science and Technology of China

Bachelor of Engineering(Internet of Things Engineering)

School of Information and Communication Engineering

Sept. 2016 - June 2020

GPA: 3.68/4.00

HONORS & AWARDS

Scholarship for Outstanding Students, UESTC

Mar. 2017

Third Prize Award of Mathematical Modeling Contest, UESTC

June 2017

Meritorious Winner,US Interdisciplinary Contest in Modeling (ICM)

Mar. 2018

Excellent Concluding Report, National Students' Innovation and Entrepreneurship Project

Sept. 2018

Scholarship for Outstanding Students, UESTC

Mar. 2019

PROFESSIONAL EXPERIENCE

Python Course Intern, SimpleCloud Tech

Jan. 2019 - Apr. 2019

- Designed Python advanced algorithm course in the online education platform Shiyanlou
- Currently there are 5889 students have studied my courses

Winter School, University of Oxford

Jan. 2017 - Feb. 2017

- Oxford Study Program, Merton College

Summer School, National University of Singapore

June 2018 - Aug. 2018

- Entrepreneurship and Innovation, ISPACE
- Innovation Management Program, Faculty of Engineering

RESEARCH EXPERIENCE

3D Human Pose Estimation Algorithm

Oct. 2019 - June 2020

- Thesis Supervisor: Zeng Liaoyuan(UESTC)
- Designed this estimation algorithm that adopts two-stage 3D human pose estimation method, and the training neural network model is based on hourglass network structure.
- Based on the principle of camera imaging, combined with the single hole imaging model, the 3D coordinate of human posture is constrained geometrically.
- Trained the model in MPII dataset and finally achieved less average joint error(56mm) than the stacked hourglass network at the same type.

WeChat Mini Program of UESTC Campus Map

Feb. 2019 - July 2019

- This product is serviced for all our students and teachers. We add some special functions that users can make comment and recommendations on the base interface from Tencent Map. UESTC Campus Map finally put in use and get some praise.
- As the team leader, my duty is to coordinate the team with the work allocation and process track.
- Designed the Django framework in its database and final declaration procedure.

Smart Home System

Apr. 2019 – June 2019

- Based on ZigBee communication protocol stack, the system achieves smart home function in intelligent lighting control panel, such as automatic curtain function and three-way lighting switch control function.
- Designed the wireless networking function and the gateway module.
- Designed the process algorithm of temperature control switch.

QPSK Full Duplex Communications System

Sept. 2018 – Nov. 2018

- Advisor: Fu Zhizhong (UESTC)
- Based on FPGA platform, combined with QPSK principle, this communication system supports both compressed file and full duplex voice transmission.
- Set up communication simulation leveraging MatLab on FPGA platform and actual link, including receiving and transmitting antenna.

“Health Assistant” APP

July 2018 – Nov. 2018

- Advisor: Wu Huijuan (UESTC)
- A derivative APP that tracks and analyzes user's steps which is obtained from plug-in WeRun API and intelligently pushes health tips
- Designed the data analysis system and evaluated the patterns of user's steps
- Established the evaluation indices system considering user's diet and physique

RELEVANT COURSES

- Master Degree (NUS)

Completed Courses

Stochastic Process
Neural Networks
Computer Network
Optimization for Electrical Engineering
Real time System

- Bachelor Degree (UESTC)

Mathematics Related Courses

Calculus (4.0/4.0)
Linear Algebra and Space Analytic Geometry (4.0/4.0)
Probability and Statistics (4.0/4.0)

Ongoing Courses

Information Theory and its Application
Pattern Recognition
Advanced Computer Network
Multiprocessor System
Selected Topics in Industrial Control

Professional Core Courses

Principle of Communication (3.9/4.0)
Signals and System (4.0/4.0)
Information Theory (3.7/4.0)
5G Wireless Access Technology (4.0/4.0)
Information Security (4.0/4.0)

MISCELLANEOUS

Computer Languages
Software & Framework
OS

C/C++, Python, MatLab, Golang, Latex
Pytorch, Pandas, Numpy
Linux, Windows