## **Zhouyang Li**

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### **Education Background**

#### Huazhong University of Science and Technology (HUST), China 09/2015-07/2019 Department: School of Electrical and Electronic Engineering Major: Electrical Engineering and Automation GPA: 3.91/4.00 Degree: Bachelor of Engineering (expected in July 2019) University of Manchester, UK 07/2017-08/2017 Summer Courses: New Product Development (20 credits) **Standard Tests** TOEFL: 100 (R27 + L28 + S20 + W25)14/07/2018 GRE: 326 (V157 + Q169) + AW4.0 13/05/2018 **Awards** Self-improvement Scholarship, Huazhong University of Science and Technology 2018 Wuhan Longcheng Scholarship, Wuhan Longcheng Electric Apparatus Works 2018 Self-improvement Scholarship, Huazhong University of Science and Technology 2018 Outstanding League Cadres, Huazhong University of Science and Technology 2017

### **Research and Internship**

#### Control Systems Related Experience:

#### Single-end Flyback Switching Power Design

06/2018-07/2018

2016

- Designed the circuit (including the feedback control circuit) and the PCB layout.
- Achieved a constant DC output voltage when AC input varied.

#### Maximum Power Point Tracker Design for PV system

03/2018-04/2018

- Designed the trackers based on algorithms such as P&O and Incremental Conductance.

Self-improvement Scholarship, Huazhong University of Science and Technology

- Developed the Matlab-Simulink model of PV system, analyzed the performance of the designed trackers and upgraded the P&O algorithm.

#### Controller of an Inverted Pendulum System Design

10/2017-12/2017

- Built the mathematical model of the nonlinear inverted pendulum-cart dynamic system with 4 teammates, and designed controllers based on PID and LQR control methods.
- Developed the Matlab-Simulink models for performance analysis of the designed controllers.

#### Microcontroller Programming Related Experience:

### Robotic Cart Design

10/2017-01/2018

- Used STM32F4 microcontroller as the core, and designed the periphery circuits.
- Programmed on microcontroller and achieved functions such as line-tracking, obstacle-avoiding, temperature-monitoring, Bluetooth-controlling.

#### Design of a new Air-conditioning Remote Control

04/2017-04/2018

- Designed an infrared transmitter (containing a microcontroller) fixed on the air-conditioning.
- Developed a smartphone app to control the transmitter through Bluetooth.
- Achieved customizing the working modes of the air-conditioning for a long period through the app.

#### Student Research Training Program:

### Member of Electrical and Electronic Innovation Center, HUST

09/2015-07/2016

- Learned designing circuits and PCB layout using Altium Designer and practiced welding components on the PCB board.
- Learned programming on microcontrollers (mainly STM32F) and some basic control theories.
- Designed traffic light system, controlled motor speed based on PID control method, etc.

#### Internship:

#### China Southern Power Grid Co., LTD., Intern

07/2018-08/2018

- Learned the operating mechanism of power grid dispatching automation system.
- Took part in the monitoring of the power grid system.

# **Skills**

Programming: C, C++, C51, Matlab, Verilog, Python

Electric Circuit Design: Pspice, Multisim, Altium Designer, Saber, Protel, Proteus

Others: Solidworks, Photoshop