

## Education

### Shanghaitech University

Shanghai, China

Bachelor of Engineering, Electronic Information engineering

Overall GPA-**3.80/4.0**, Major Rank-**2/55**, Overall Rank-**8/230**

Sep. 2021 - Present

## Publication

1. **Zhongtao Guan**, Jun Wan, Yu Liu, Dian Lu, Mengzhao Duan and Renke Huang. "Accurate Single-Ended Fault Location for Cable-OHL Hybrid Transmission Lines", in Power and Energy Society General Meeting (PESGM), 2023.
2. Jiayu Yang, Yu Liu\*, Kang Yue, **Zhongtao Guan**, Minfan Fu and Haoyu Wang, "Closed-Form Solutions of Mutual Inductance and Load for LCC-S Wireless Power Transfer Systems", in 3rd IEEE International Conference on Industrial Electronics for Sustainable Energy Systems, Jul. 2023.
3. Mengzhao Duan, Yu Liu, Ze Liu, Xincheng Zou and **Zhongtao Guan**. "A Group of Single-Ended Time-Domain Line Fault Location Methods Using Breaker Operation Information", in IEEE Power and Energy Society General Meeting (PESGM), 2023.

## Research Experience

### Power System Protection & Automation Laboratory

Mentors: Prof. Liu Yu

6.2022 – 8.2023

ShanghaiTech University

- Using single-ended measurement to locate faults on the mixed-transmission line.
- Design a low-Cost inverter with brand-new devices for plugging renewable energy into smart grid.

### Motor and Motion-Control Lab

Mentors: Prof. Chen Jiahao

8.2023–Present

ShanghaiTech University

- Mechanical Design and Control of biped robot.
- Design actuators for biped robot.

## Projects and Competition

### Robomaster

Robot Competition

9.2021-6.2022

- Lead and coordinate a group for experimental robot design and development.
- Responsible for mechanical design and routine maintenance.

### Inverter Design and Control

Individual Project

Spring 2023

- Realize Phase-loop and close-loop control algorithms on Ti's C2000 microcontroller.
- Design related PCB Using Altium Designer.

### Bandit Algorithm

Group Project

Autumn 2022

- Realize and compare the performance of  $\epsilon$ -greedy, UCB(upper confidence bound) and TS(Thompson Sampling) algorithms.
- Design more practical cases and adjust algorithms to obtain better performance.

## Work and Volunteer Experience

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### Electric Circuit

Teaching Assistant

Spring 2023

ShanghaiTech University

- Responsible to course recording, tutorial classes; set questions and answers.

### Volunteer Teaching in Yunnan

Volunteer Teacher

Spring 2022

ShanghaiTech University

- Teaching Physics and Chinese for children in one of Dali's depressed village.
- Continue donating salary of teaching assistant through United Nations Children's Fund.

## Awards

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Excellent Student

Top 3%

2022

Outstanding Individual in Social Practice

2022

RoboMaster University Championship (Eastern Division)

2nd Prize

2022

RoboMaster University Championship (National)

3rd Prize

2022

Outstanding Teaching assistant

2023

National Undergraduate Electronic Design Contest (Shanghai Division)

2nd Prize

2023

## Skills and Courses

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Programming Skills and Software: C/C++, Python, MATLAB, Simulink, Code Composer Studio, Altium Designer, Solidworks, AMPL, Julia