

LI BOQIAN

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🎓 EDUCATION

Tiangong University, Tianjin City, China

Aug. 2019 – Present

Undergraduate. Communication Engineering, expected to graduate in Jun. 2023.

Grades

- *GPA*: 3.11 (4.0 total)
- *Major courses*: embedded system (95), signal and system (86), communication principle (72), control theory (78), data communication (82).
- *Additional courses*: mathematical modeling, machine learning and big data processing.
- *English level*: Pass CET-6.

🔬 SCIENTIFIC RESEARCH

Fundus image mosaic

Jun. 2021 - Sept. 2021

Participate in graduate laboratory projects, medical image processing

- Use a machine learning algorithm to create a fundus image mosaic and synthesize local fundus images from multiple angles into a panoramic image.

Heart rate and blood pressure measurement method based on TOI

Sept. 2021 - Present

Graduation design, physiological information collection

- I utilized a camera to record a facial video, developed a video processing algorithm on MATLAB, and successfully extracted heart rate and blood pressure information from the video.
- To enhance the precision and accuracy of this method based on Transmittance Optical Imaging (TOI), I conducted a thorough study on the factors that affect these measurements, including various environmental and physiological factors.
- Moreover, I implemented machine learning algorithms to further improve the accuracy of the heart rate and blood pressure measurements.

🧰 STUDENT WORK

The Student Union Officer

Sept. 2019 - Sept. 2020

- I am responsible for managing the official account of the School of International Education at Tianjin University of Technology. My duties include writing documents, taking photos of events, and editing videos.
- Work with foreign students and have participated in English translation.

Class cadre Publicity committee member

Sept. 2019 - Sept. 2021

Class cadre League branch secretary

Sept. 2021 - Present

🏠 HOBBY

- I love acting. I'm a member of the college choir and have participated in school and municipal chorus competitions. I've also been a program host and taken part in speech and recitation competitions, achieving excellent results.
- Electronic enthusiasts, with work experience in open source projects.

📊 SELF-EVALUATION

I enjoy tackling new challenges and helping others with a positive service attitude, excellent communication and teamwork skills. I'm passionate about learning and keeping up with new technologies. I'm a responsible and confident self-starter, with strong analytical and problem-solving abilities, able to adapt to changing situations.

APPENDIX

✓ PROJECT

Infusion alarm device based on 51 microcontroller

Dec. 2019 - Mar. 2020

Competition project, embedded development

- The photoelectric sensor measures the infusion state. An alarm will sound when the liquid in the infusion tube has finished flowing.
- Judge the liquid flow rate and adjust the closing degree of the infusion valve via the steering gear, based on the speed set by the user.

Autonomous vehicle

Oct. 2020 - Jan. 2021

Participate in graduate laboratory projects, embedded development

- The hardware control module is designed to communicate with the core module and execute corresponding control commands.
- Control of lighting system, steering system and driving system.

Remote amplitude frequency characteristic test device

Jul. 2021 - Oct. 2021

Competition items, embedded development, digital signal processing

- Use stm32f4 series microcontroller and DDS module to realize frequency sweep of components to be tested.
- Measure the corresponding amplitude and frequency characteristics through AD module.
- Send the data to the receiver and draw the amplitude-frequency characteristic curve image.

Design of smart home system based on raspberrypi

Oct. 2021 - Oct. 2022

Personal projects, embedded development, Internet development

- The web front-end is designed based on Linux as the primary interactive interface for smart homes. It is used to monitor the running status of various devices and control them.
- Write back-end programs using Python and C to control TVs, lamps, air conditioners, and other equipment with Raspberry Pi.

📁 INTERSHIP

Huawei Co., Ltd

Aug. 2020 - Sept. 2020

Learn about web development based on java and php

- Server operation and maintenance
- WeChat official account background maintenance

⚙️ PROFESSIONAL SKILLS

- Programming languages: c, python, matlab
- Platform: embedded development, machine learning

💻 OTHERS

- 🌐 Personal homepage:<https://github.com/aurora0543>