Xiaokun GU

| E-mail: xiaokungu2022@.u.northwestern.edu

SUMMARY

Seeking for a software engineer internship starting from August 2023.

Master degree candidate from and with relatively strong programming and analytical skills. Experience developing mobile application using Java.

Recent Graduation in Electrical Information Engineering in 2022 in Dalian University of Technology.

EDUCATION

Dalian University of Technology **09/ 2018 – 06/2022**

- Bachelor of Engineering in Electrical Engineering Awarded 06/2022
- GPA: 85.3/100
- 2020 Second Class Learning Excellent Scholarship, Top 15%

WORK EXPERIENCE

***Intern*, Dalian Zhihui Jingling Technology ,Co.Ltd, Dalian, China** 06/2021-07/2021

- Designed the interface of a app which is designed to implement the control on/off of smart home with Java.
- Implemented the control of the LED lights on STM32 in vscode.
- Implemented the real-time display of data of temperature and humidity, illumination, smoke and other parameters, and the switch of manual control equipment, as well as automatic/manual conversion.

SKILLS

- **Programming Languages:** Python , C , MATLAB, Java
- **Tools:**Pyhcarm , MATLAB R2019b , IntelliJ IDEA, Visual Studio.

PROJECT EXPERIENCES

Digital Image Processing and Segmentation, Path Academy

Mentor: Dr. Munib Wober, GEC Academy Instructor, Harvard University

- Converted portrait photo into YCbCr format, run various filters on Y, Cb, and Cr formats respectively, compared the effects, and figured out that the Y channel had the best effect.
- Performed a canny edge detection on specific image and optimized the threshold of the canny edge detection
- Performed the non-maximum suppression and thresholding on the image, optimized the threshold and compared the results.

Industrial Control Bus (Communication based on Modbus Protocol)

Mentor: Dr. Fei Xu

- Studied the modes of Modbus/RTU, Modbus/TCP, Cyclic Redundancy Check (CRC), the construction of the two-layer network, and the related knowledge of serial port (Serial)
- Constructed a Microsoft Foundation Classes (MFC) application program with alarm when the system detects the abnormal condition of the patient, realized the main function of double-layer network communication.
- Applied RTU communication protocol to calculate the CRC check code using the modulo two calculation method, set up the serial port, and sent TCP and RTU packets
- Implemented the function of communicating with the computer through the RTU protocol for the monitoring equipment and sending messages through the TCP/IP protocol from the computer

PUBLICATION

Xiaokun Gu, 2021 Challenge-aware Visual Tracking: Methods and Experimental Comparison, 2021 International Conference on Picture Processing, Robotics and Artificial Intelligence (PPRAI 2021), will be published by IEEE Conference Publishing Services