Jiaming Yu

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EDUCATION

Boston University, College of Engineering, Boston, MA *Expected 2021*

Master's science in Electrical&Computer Engineering

Boston University, College of Engineering, Boston, MA *May 2020*

Master's science in Mechanical Engineering with robotics specialization

- GPA: 3.86 / 4.0
- Recent Related courses: Advanced Data Structure, Machine learning; Dynamic System Theory, Robot Motion Planning, Introduction to Embedded System, etc

Shanghai Jiao Tong University (SJTU) , School of Mechanical Engineering *June 2018*

Bachelor's Degree of Science in Mechanical Engineering

- Honors: Top four in University Debating Competition at STJU
- Related Courses: Thinking and Approach of Programming, Programming: Principles and Practice using C++, Design of MCU systems, etc

PROJECT EXPERIENCE

Linux project *Spring 2020*

- Learned to build the Linux kernel, use cron and run Linux distribution in QEMU.
- Wrote some Linux kernel modules like timer module for Linux; implemented an asynchronous notification mechanism and a procfs entry for the modules
- Practiced optimizing and debugging an embedded system.
- Implemented the snake game (in C) using QT and Linux framebuffer.

Nearest State/County Finder *Fall 2019*

- Implemented the code (in C++) to design the nearest state/county finder
- Built a k-d tree as data structure to store more than 200,000 reference points and implemented the efficient query to return state and county of K nearest neighbors when entering latitude and longitude. The code is run on the SCC of Boston University and uploaded to the GitHub

Sampling based method with repulsive potential for moving obstacles *Fall 2019*

- Presented a novel sampling based method with repulsive potential to plan the robot trajectory under dynamic environments with moving obstacles
- Implemented the code (in MATLAB) to simulate the novel sampling based method with repulsive potential
- Won the third place in the ME570 motion planning final paper competition

Recognizing Relationship Between Two Objects in an Image *Summer 2019*

- Implemented the code (in Python) to filter data like objects relationship and bounding boxes
- Built the machine learning model (multi-classifier for binary class) using PyTorch with group members
- Designed the experiment and implemented the code (in Python) to derive bounding boxes in pictures as input

Continuum Robot for the Extraction of Corneal Lenticule *Spring 2018*

- Responsible for designing the mechanical structure of the robot and optimizing the design according to the assembly experiment and processing the data with MATLAB

Additional Projects:

- Image Recognition with TensorFlow on Raspberry Pi
- Single Chip-controlled Mechanical Arm
- Electric Walking Assistant
- Thermal Sensor Window

INTERNSHIP EXPERIENCE

MROBOT Co.,Ltd *Fall 2018*

R&D Department Engineer Assistant

- Tested and improved the code for single chip microcomputer (in C++)
- Practiced FEA to assist engineers to design

Civil Aviation Engine Testing and Verification Center *Summer 2017*

Trainee

- Studied the structure of aviation engine, including disassembling and assembling, aero engine blade measuring and modelling, analysis software and simulation platform, test technique and experimental measurement
- 3D scanning with Geomagic Studio operation and UG modeling to realize aero engine blade measuring and modelling
- Joined the seminar exploring the balancing issue of aviation engine system

Additional Projects:

- Intern of Ningbo Dooya Mechanic & Electronic Technology Co., LTD
- R&D Department Intern of Ningbo GAOFA Automotive Control System Co., LTD