

JACQUELINE ZENG

📞 314-853-7155

✉ jzeng@olin.edu

🌐 jackiezeng01

🌐 jackiezeng01

EDUCATION

OLIN COLLEGE OF ENGINEERING • NEEDHAM, MA

B.S. in Electrical Computer Engineering: GPA 4.0

2019 - 2023

- Recipient of a 4-year, 50% tuition Olin Merit Scholarship
- Coursework: Software Design, Quantitative Engineering Analysis, Introduction to Sensors, Instrumentation and Measurement, Modeling and Simulation, Products and Markets, and Design Nature

EXPERIENCE

POINT ROAD SOLUTIONS • BURLINGTON, MA

Robotics Engineering Intern

June 2020 – Present

- Prototyped autonomous, cable-traversing, aquatic robotic system for coastal data collection
- Integrated electrical system with Raspberry Pi, Teensy, motor, and various sensors
- Programmed firmware in C++ for robot locomotion and health monitoring
- Developed interactive Python web-app with Flask, Socket.IO, SQL, HTML, and JS that allows users to control robot, log data, and monitor live readings from sensor suite
- Designed waterproof enclosure for electronics, belt drive system, and cable gripping wheels using CAD software
- Published in the IEEE Explore and presented final model at OCEANS Global 2020 MTS/IEEE Conference

FORMULA SAE – OLIN ELECTRIC MOTORSPORTS • NEEDHAM, MA

Electrical Design Lead (Present), General Electrical Engineer

Sept 2019 – Present

- Used Kicad to design PCB that facilitates serial communication between CAN bus and Linux server to output CAN messages on an LCD
- Assembled and tested PCB, troubleshoot issues with buck converter
- Developed UI with Python library KIVY to visualize CAN data, allowing for rapid debugging of vehicle

SUMMER SCIENCE PROGRAM: NEAR-EARTH ASTEROID RESEARCH • BOULDER, CO

Astrophysics Student Researcher

June 2018 – Aug 2018

- Collected field data and developed Python software to analyze and predict the trajectory of asteroid 2001 BY60
- Published findings in the IAU Minor Planet Center database

PROJECTS

NAVIG8R – MAKEHARVARD HACKATHON 2ND PLACE

Feb 2020

- Developed non-intrusive LED bike navigation system that reduces cell phone related accidents
- Programmed LED behavior in C++, utilized SPI to transmit data between Raspberry Pi and Arduino, designed UI that connects with Raspberry Pi through a web API

SMART AIRBNB PRICE PREDICTOR

Feb 2020

- Used MATLAB to perform linear regression over 500,000 Airbnb listings to understand which factors influence price
- Created algorithm that predicts price of a property given attributes of the house

TAG: COMPUTER VISION POWERED OBSTACLE AVOIDANCE GAME

Apr 2020 – June 2020

- Created game using OpenCV and Pygame that allows players to control virtual characters by moving physical game pieces in front of a webcam

INFORMS COMPETITION

Sept 2019 – Jan 2020

- Conducted exploratory data analysis with the Seaborn Python library and optimized a factory distribution system

SKILLS

SOFTWARE: Python, Java, Embedded C, C++, HTML, JavaScript, Node.JS, React.JS, CSS, SQL, PHP

TOOLS: MATLAB, KiCad, Git, Fusion 360, Onshape, Docker

DESIGN: Adobe Creative Cloud, Procreate, Figma

LANGUAGES: Chinese, Spanish