

Qing Yan
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EDUCATION

- **University of Washington - B.S. in Electrical & Computer Engineering** **6.2024 (Expected)**
- Cumulative GPA: 3.67 (*Dean's List every quarter*)
- Courses: *Calculus, Signal Processing, Circuits, Data structure and Algorithm, Robotics and Control System Analysis, Digital Circuits and Systems*, etc

SKILLS

- Hardware: logic gates, operational amplifiers, RLC circuits, oscilloscope, spectrum analyzer, photography skills, soldering skills, 3D printer
- Software: Java, Python, Swift, RobotC, R code, Verilog
- Tools: Quartus, Xcode, Firebase, Photoshop, FPGA, R Studio

EXPERIENCE

- **iFlytek Co., Ltd. - Tech Department Intern** **6.2022 ~ 9.2022**
 - Participated in a project analyzing intelligent manufacturing needs in Anhui Province. Conducted enterprise surveys, analyzed customer requirements, and compiled statistical reports. Gained expertise in electronic engineering, focusing on control systems and robotics, data analysis and communication skills.
- **Sensor, Energy, and Automation Laboratory at UW- Embedded Team Associate** **4.2023 ~ Present**
 - Mainly engaged in research on the Embedded Antenna Signals project, detecting the Electromagnetic Interference. Collaboratively contributed to various other embedded hardware initiatives, including the Fruit Ripeness Sensor, Ammonia Sensor, and Weak Signal Instrument projects, by providing technical expertise and innovative solutions.

PROJECTS

- **6 Degree-of-Freedom MechArm- Control System Analysis project**
 - Using the 6 DoF MechArm from Elephant Robotics, based on an understanding of dynamics and coordinate system transformation, apply knowledge of path planning to write a Python program for the tasks of dual robotic arms cooperating in building blocks and one robotic arm using a mallet to hammer the blocks into gaps.
- **Freenove Car - Control System Analysis project**
 - Used Python and Linux System to control the robot car's LED, motors, buzzers, line tracking sensors, and cameras. Designed our own program to perform specific movements using these components.
- **Embedded Antenna Signals Project - SEAL project**
 - A project to design the signal-receiving module for the Heimdall ACU's antenna system to detect weak electromagnetic interference. The weak signal detector is built with a transformer, preamplifier, and the DAQ.
 - Contributed to PCB simulation, designing experiments to test the ability to continuously receive very low frequency signals and finding solutions to reduce noise for the final product.
- **Autonomous Self-Driving Wheelchair – ENGINE Capstone Project (collaborated with Cyberwork Robotics)**
 - A project sponsored by the Cyberwork Robotics Inc. to build an autonomous self-driving wheelchair.
 - The electric wheelchair is built with realsense camera, RPLidar, IMU, etc for navigation. Utilized SLAM and YOLO algorithms combined with various ROS packages for the wheelchair's autonomous driving and obstacle avoidance. Employed the company's unique Skylane navigation system for lane keeping. Integrated the OGMD algorithm to recognize abnormal occupancy grid map feature in order to switch navigation programs.

ACTIVITIES&AWARDS

- 2019 VEX Robotics World Championship Semifinals
- 2019 VEX Robotics China National Championship Gold Award
- 2018 VEX Robotics Asian Open Gold Award
- China Adolescent Robotics Competition First Prize, 2 times