Siqi Wang

1859 Shirley Ln, Ann Arbor, MI 48105
Phone: (805) 235-5751 Email: frankwsq@umich.edu

OBJECTIVE: Looking for full-time/internship/co-op on embedded system/hardware design in aerospace/robotic/automotive industry

EDUCATION:

University of Michigan, Ann Arbor
BSE in Computer Engineering
August 2022 - Dec 2024

UC Santa Barbara
BS in Physics
September 2020 - June 2022

GPA: 3.52

SKILLS: C/C++, Python, STM32, RTOS, serial communication protocol(TCP,UART), Embedded control system Design
CAN protocol, Kalman Filter, ROS
Simulink, Matlab, simulink, ARM Assembly language, Verilog

COURSES: Embedded Control system, Logic circuit, robotics, FPGA with verilog, Robotic control, Computer vision

EXPERIENCE:

U of Michigan - Intelligent Robot & Autonomy Lab Ann Arbor, MI(June/ 2023 - Jan/2024)
Control Algorithm developer for Aerial Vehicles
Research on a morphable drone using robotics RTOS.

- Implemented inverse dynamics for drone movement with Mavros lib
- Solving control problems such as control singularities issues due to extra degree of freedom
- Using geometric knowledge such as Lie group to debug and analyze robots' status
- Analyze robotic dynamic models that involve physical knowledge

TopXGun Nanjing, China(Dec/2023 - Mar/2024)
Flight control software engineer intern(hybrid)

- Developed control logic for transitions between vertical and horizontal flight in VTOL UAVs.
- Created autonomous logic to assess takeoff conditions and initiate flight above tree canopies.
- Designed control logic to stabilize UAVs during crosswinds and air turbulence.
- Engineered timing mechanisms for the engagement and disengagement of electric propulsion systems.

Embedded system design project, Ann Arbor, MI(Oct/2023 - Dec/2023)
Hardware developer for robots

- Use UART, I2C protocol level protocol for robots wireless communication
- Using PWM and C language to implement robot remote control.
- Implementing FPGA logic using Verilog

U of Michigan - Intelligent Robot & Autonomy Lab Ann Arbor, MI(Aug/2022 - Feb/2023**)**
Robot system developer

- Simulated multi-drone agents in a Gazebo environment.
- Established inter-drone communication
- Simulated communication noise

Michigan Autonomous Aerial Vehicles Ann Arbor, MI(Aug/2022 - Jan/2023**)**
Hardware Developer for Aerial Vehicles

- Designed killing switches and safety features for autonomous drones.
- Integrated sensors into the PCB design

BArdor Ann Arbor, MI(May/2024 - Aug/2024**)**
Automotive Junior Program Manager
Responsible for delivery of automotive parts from OEM to buyers from Stellantis, Ford, Nissan etc.

- Participated in price determination based on tech spec and industry norm for automotive parts, including cluster, center stack display etc.
- Submit "request for quote" for automotive products with scale of millions USD revenue
- Collaborate and coordinate with engineering teams from China, US, and Mexico factories on product delivery

TEACHING **U of Michigan - EECS department** Ann Arbor, MI(Aug/2024 - present)
Grader/TA for Embedded control system

- Evaluated student assignments and projects focused on embedded control systems.
- Helped students understand complex embedded systems concepts

PATENTS: **Utility Patent for Improvement on Model Plane's Propeller** Nanjing, China(July/2019)