Kyle Wang

732-501-2292 kylewang239@gmail.com Linkedin: kylewang239 East Brunswick, NJ

Employment and Professional Experiences

Cleanr **Cleveland, OH**
Innovation Engineer **March - August 2023**

- Developed a data logger system and website using National Instruments DAQmx, G Web, and Systemlink Cloud to allow efficient real-time and historical data access
- Prototyped an RFID-based tracker for disposable washing machine pods
- Assisted in designing a washing machine buffer tank to adapt to international pump standards, ensuring adaptability across global markets
- Designed a custom microprocessor board for washing machine electrical systems, optimizing in-house design, prototyping, and production processes

Viscofan Collagen USA **Bridewater, NJ**
Electrical Engineer Intern **May - August 2021, June - August 2022**

- Designed a replacement PLC/Display system using DirectLogic 205 PLC (Programmable Logic Controller) and a C-more EA9 HMI (Human-Machine Interface) for monitoring and adjusting casing width
- Designed a Dual-Tank HCl Filling system using a Siemens CPU 1214C PLC and a TP700 Comfort HMI
- Created Single-Line power diagrams for one of the buildings and updated old charts to include building renovations
- Created networking diagrams for various components including network switches, PLCs, and computers

Eagle Scout, Boy Scouts of America **October 2019**

Projects

Robot Coffee Maker **ME 495 Embedded Systems in Robotics**

- Programmed a 7 DoF Franka Emika Panda robot arm to brew a cup of pour-over coffee using ROS2, MoveIt 2, OpenCV, and AprilTags
- Built a Python wrapper for the MoveIt 2 package to guide the robot to specified positions and/or orientations, or move along a defined path, using inverse kinematics

KUKA youBot Mobile Manipulation Simulation **ME 449 Robotic Manipulation**

- Simulated a mobile robot with mecanum wheels and a 5 DoF robotic arm in CoppeliaSim
- Generated a trajectory to manipulate a block, using feed-forward control and a PI controller

CWRUBOTIX Robotics Team **Cleveland, OH**
Combat Sub-Team, Co-Lead 2022-23 **August 2021 – May 2023**

- Designed the 3D printed chassis, weapon, and electronics system for a 3 pound combat robot with a full-body spinner type weapon, and worked on an algorithm to convert a 2-axis control system into instructions for a 3-axis triangular drivetrain

EDUCATION

Northwestern University **Evanston, IL**
M.S in Robotics, 2024

Case Western Reserve University **Cleveland, OH**
B.S.E in Electrical Engineering, 2023

SKILLS

AWS; CAD; CSS; C++; Data Analytics; DevOps; Django; FTP; Gazebo; Github; HTML; Java; Javascript; Linux; MATLAB; MQTT; OpenCV; Python; ROS/ROS2; Ubuntu, Unit Testing