

# VICTORIA HONG

856 536 2560 | Cherry Hill, NJ | vkhong225@gmail.com | linkedin.com/in/VictoriaKHong | vkh12.github.io

## EDUCATION

**Rutgers University**, New Brunswick, NJ

Expected Graduation: May 2023

**B.S. in Computer Engineering & Minor in Computer Science | 3.5**

- **Awards:** Dean's List (Spring 2020)
- **Relevant Coursework:** MATLAB, Digital Logic Design, Engineering Mechanics, Engineering Economics, Scientific Research

## PROJECTS

**Optimal Trajectories for Autonomous Human-Following Carts**

July 2020 - Present

- Conduct research on autonomous systems with Dr. Jingang Yi to develop a framework that produces optimal trajectories for contactless carts to achieve safe shopping in crowded environments
- Utilize RGB cameras for human tracking and activity recognition and Adaptive Monte Carlo Localization (AMCL) to estimate robot poses and calculate optimal trajectories
- Experiment with ROS/Gazebo simulations using modified Turtlebot3 platforms and in-lab experiments with an omni-directional robot to prove the accuracy and robustness of technology

**Anomaly Detection Algorithm for Autonomous Driving Vehicles**

March 2020 – May 2020

- Researched with Dr. Dario Pompili to create an algorithm to detect anomalous data in autonomous vehicles
- Utilized Gaussian Mixture Model (GMM) anomaly detection method to sort and classify data in specific categories
- Tested resultant data against Multi-Class LSTM Autoencoder and Multi-task Learning Model and concluded GMM produced the most accurate result that consistently found and sorted all anomalies with test and real data

## EXPERIENCE

**CAMDEN COUNTY TECHNICAL SCHOOL**, Sicklerville, NJ

June 2019 – Present

**Robotics Mentor**

- Mentor three high school robotics teams and teach a total of 100 students about programming and machining
- Spearhead and design the curriculum for annual Girl Scout workshops and STEAM camps for 120+ students

**RUTGERS UNIVERSITY Busch Student Center**, Piscataway, NJ

September 2019 – March 2020

**Operations Assistant**

- Assisted an average of 230 customers a day and organized events by setting up tables, chairs and sound and video equipment

**PHO VOORHEES**, Voorhees, NJ

October 2017 – March 2020

**Waitress**

- Served 190+ customers daily and managed point-of-sales payment systems for seamless transactions
- Proposed and implemented an expansion of the restaurant beverage line that led to a 10% increase in annual sales
- Trained 40% of new employees about expectations, safety procedures, food and drink preparations, and POS system

## LEADERSHIP AND HONORS

- **Ambassador, America Needs You** (November 2020 – Present): Selected as one of 6 New Jersey Fellows to serve and recruit the next Cohort of Fellows
- **Fellow, America Needs You** (August 2020 – Present): Selected as one of 75 first-generation college students in New Jersey to serve in a 2-year career development and leadership training program
- **LSAMP Scholar, Louis Stokes Alliance for Minority Participation Program** (July 2020 – Present): Selected as one of the 30 students to participate in a research and professional development program at Rutgers University

## SKILLS AND INTERESTS

- **Programming & Development:** Python, HTML/CSS, JavaScript, C, C++
- **Software:** MATLAB, Autodesk Inventor, ROS, PyCharm, Jupyter, Gazebo, Overleaf, Blender
- **Machining:** Plasma Cutter, Laser Cutter, CNC Mill, Mill Machine, Lathe Machine
- **Interests:** Cooking, Crime Shows, Thrifting, Couponing, Graphic Design
- **Affiliations:** FIRST Robotics, Douglass Residential College, Society of Women Engineers, Minority Engineering Educational Task