Maheer Sayeed

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EDUCATION

CARNEGIE MELLON UNIVERSITY - Pittsburgh, PA

Bachelor of Science in Mechanical Engineering GPA : 3.5 / 4.0 **Graduated Dec, 2021**

Master of Science in Mechanical Engineering GPA : 3.9 / 4.0 **Graduated May, 2022**

GEORGIA INSTITUTE OF TECHNOLOGY - Atlanta, GA

Master of Science in Computer Science **Expected Graduation Dec, 2026**

EXPERIENCE

GENERAL MOTORS - Warren, MI **July 2022 - Present**

Automated Driving Software Engineer Web Automation **Aug 2023 - Present**

- Primary engineer working on automation test development for the Vistool data visualization desktop application
- Refactored testing framework to use Playwright automation library with Node 16
- Designed structure and workflow to drastically improve development speed, error-handling, debugging and reporting capabilities for the new testing framework.
- Developed 10+ test suites accounting for 80 percent test coverage through PR automation
- Successfully integrated Vistool application to function on ACP3 Bench during transition from ACP4 to ACP3

Automated Driving Software Engineer Data Validation **Feb 2023 - Jul 2023**

- Worked in agile scrum team developing software for Ultra Cruise data collection operations
- Developed alignment validation wrapper in Python that detects misalignments and generates a report for each lidar/camera pairing on the vehicle
- Developed RINEX file download tool to automate retrieval and storage of daily RINEX files used to supplement GPS data
- Worked as full-stack developer on the data validation web-server, helping refactor the server to use PERN tech stack
- Developed end-to-end features such as the Vehicle Management page to track the data collection status of all vehicles

Chassis Controls TASL Engineer **Jul 2022 - Jan 2023**

- Built TASL review Desktop app that streamlines the discovery and review process for new embedded controller suppliers
- Developed app using Tornado web framework with Python for backend and frontend logic and CSS for styling
- Hosted feedback sessions with team to continuously improve the tool throughout the course of my tenure in the role
- Successfully added 9 qualified suppliers for brake controllers using the application
- Successfully integrated tool to be used for future supplier reviews

PROJECTS

Habit Tracking Web Application **Summer 2023**

- Developed and deployed a voice activated habit tracking web application
- App is written in MVC architecture with a React frontend, Express backend and a PostgreSQL database
- Web application and remote database are both deployed with Azure Web Services

Rubik's Cube Solving Robot **Summer 2022**

- Used Python to develop algorithm with graph-generation and Dijkstra's pathfinding to find semi-optimal solution for any scrambled Rubik's Cube
- Developed color-classifier with OpenCV to detect state of the scrambled cube from webcam input
- Used Fusion 360 to design and build unique 2-motor cube solving robot
- Programmed ESP8266 board on Arduino IDE to control stepper and encoder motors with PID feedback loops

SKILLS

Languages: Python, JavaScript, TypeScript, C++, CSS, Bash, C, Arduino, MATLAB

Tools: Linux, Git, Docker, React, Express, Postgresql, Playwright, Webdriverio, OpenCV, SolidWorks, Autodesk Fusion 360, Catia V5

ADDITIONAL

- GM TRACK Functional Representative **Oct 2023 - Present**
- Tartan Autonomous Underwater Vehicle (Robosub) **Fall 2018 - Summer 2022**
- WRCT Radio Station **Fall 2018 - Spring 2020**