

Maheer Sayeed

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EDUCATION

CARNEGIE MELLON UNIVERSITY - Pittsburgh, PA

Bachelor of Science in Mechanical Engineering

Graduated Dec, 2021

Master of Science in Mechanical Engineering

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

Software Engineer - Vistool

Aug 2023 - Present

- Primary responsibilities are to develop, test and integrate features for Vistool on-vehicle data visualization desktop application in order to assist Super Cruise development.
- Developed end-to-end feature to collect pub-sub data on server side and transfer it up to client side for display
- Refactored testing framework to transition from Spectron to Playwright automation library while upgrading to Node16.
- Designed structure of framework to drastically improve development speed, error-handling, and reporting capabilities.
- Successfully integrated Vistool to function on ACP3 bench during platform transition from ACP4 to ACP3

Automated Driving Software Engineer

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 Vehicle Management page end-to-end to track the data collection status of all vehicles
- Developed download geojson feature to create geojson file from generated map data on Iris web server.

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
- 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, NodeJS, JavaScript, TypeScript, C++, CSS, Bash, C, Arduino, MATLAB

Tools: Linux, Git, Docker, React, Express, Postgresql, Playwright, Protobuf, socket.io, 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