Matthew Moliassa

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EDUCATION

University of Michigan, Ann Arbor, MI   Expected April 2022

Bachelor of Science in Engineering; Computer Engineering; Cumulative GPA: 3.96/4.00

- Relevant Coursework: Data Structures and Algorithms, Logic Design, Discrete Math, Electronic Circuits; Fall 2020: Computer Organization, Computer Vision, Signals and Systems
- Extracurriculars: Eta Kappa Nu, Tau Beta Pi Honor Society, Michigan Investment Group, BlueLab Project Team

EXPERIENCE

General Electric Aviation   Detroit, MI

Software and Digital Technology Intern   May – August 2020

- Managed creation of ERP integration data inventory by planning technical contents, working with global product owners, and designing a hosting solution; Inventory is a central reference for software deployment and PM teams
- Created metrics dashboard to track BusinessObjects app usage by querying license database with SQL and parsing with C++; Dashboard insights led to removal of 2700 unused permissions and budget controls on user licenses
- Collaborated in hackathon; created MVP optical character recognition tool for faster processing of engine repair logs; experimented with Microsoft CV API and Python tesseract

University of Michigan - Walter E. Lay Automotive Engineering Laboratory   Ann Arbor, MI

Research Assistant   May 2019 – March 2020

- Managed experimental setup for a multi-fuel military tactical generator research project
- Integrated several acquisition systems and sensors into a data-acquisition cart for flexible engine benchmarking
- Optimized test-cell infrastructure (water/exhaust piping) for multi-engine testing
- Modified generator engine; fabricated extension piece with CAD for reliable air temp. and pressure readings

Charter Township of Canton - Public Works   Canton, MI

Geographic Information Systems (GIS) Intern   May – July 2018

- Completed a project that involved digitally mapping sewer features, reading and processing engineering plans, and utilizing ArcMap software to input utility data into a citywide geographic database
- Contributed 8000 data features to Canton's GIS database to help city workers with future positioning verification

Ford Motor Company   Dearborn, MI

Powertrain Supplier Technical Assistance Engineering Intern   June – August 2017

- Processed and compiled technical information on over 70 parts suppliers into a data map that became standard reference for STA engineers and managers
- Assisted engineers in on-site supplier evaluations and meetings to ensure industry quality standards were met

PROJECTS

Recipe Generator Web Application   May – July 2020

- Developed Node.js app that processes ingredient inputs and displays relevant recipes from a public food API
- Implemented MongoDB caching to reduce expensive API calls and speed up recipe searching

FPGA Lab Projects   September – December 2019

- Completed 5 combinational and sequential digital logic projects with Altera DE2 FPGA, Verilog, and Quartus.
- Projects included a combinational calculator, traffic light system, and state machine NES controller simulation

Object-Retrieving Robot   January – April 2019

- Designed and constructed RC Robot to pick and place items into an elevated goal; delivered design review presentations

IoT Automated Door System   September 2017 – May 2018

- Developed an affordable automated door system for household use to relieve physical human mobility limitations
- Collaborated in team of four; responsible for entire engineering design process (hardware and software)

BSA Eagle Scout Project – Furniture for First Step Domestic Abuse Shelter   May 2016 – January 2017

- Independently managed 20+ workers in large-scale work sessions, organized fundraising efforts totaling $800, collaborated with nonprofit executives and local businesses, oversaw and devised entire project process

SKILLS & HONORS

Software Tools: C++, JavaScript, Node.js, MATLAB, MongoDB, Bootstrap, HTML/CSS, Arduino, Autodesk Inventor, Verilog

Honors: *BSA Eagle Scout Award* (2017), *Ford Blue Oval Scholar* (2018), *James B. Angell Scholar* (4 terms, 2018-2020)