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: 3.97/4.00

- Relevant Coursework: Data Structures and Algorithms, Computer Organization, Embedded Systems, Logic Design, Computer Vision, Discrete Math; Fall 2021: Computer Networks, Advanced Embedded Systems
  Extracurriculars: Eta Kappa Nu, Tau Beta Pi Honor Society, MProduct, Michigan Investment Group

EXPERIENCE

Salesforce — Atlanta, GA (Remote from MI)
Software Engineering Intern - Pardot — May – August 2021

- Currently working on the Pardot marketing automation team, engaging in a project to migrate user configuration for the Pardot application into core Salesforce to enable a more unified admin experience
- Work has consisted of modifying an existing data pipeline to support syncing of configuration information between apps, developing classes to build API payloads, designing configuration files to map data to a DB schema, and implementing UI functionality to allow for user modifications

MathWorks — Natick, MA (Remote from MI)
Software Engineering Intern – Simulink Simulations — January – April 2021

- Developed foundation for a static API to support access to data type descriptions for simulation inputs and outputs in a standardized way
- Created serializable data model to enable access to composite data types (busses, structs) in deployed simulation applications that cannot access the core Simulink environment
- Redesigned functionality to support composite data types in user callbacks that interact with input/output data
- Work enabled the usage of composite signals in deployed Simulink models, allowed for more complete interfacing with simulation data, and contributed to a service to standardize simulation control across Simulink workflows

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

University of Michigan - Walter E. Lay Automotive Engineering Laboratory — Ann Arbor, MI
Research Assistant — May – August 2019

- 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
- Modified generator engine; fabricated extension piece with CAD for reliable air temp. and pressure readings

PROJECTS

Maze-Navigating Robot — March – April 2021

- Designed and implemented maze-navigation algorithm to reach a light source; solution included interrupts and timers
- Integrated ultrasonic and light sensors into system; utilized ADC, I2C to capture signals and interact with peripherals

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

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)

SKILLS & HONORS

Software Tools: C/C++, Java, JavaScript, Node.js, Verilog, MongoDB, Bootstrap, HTML/CSS, Arduino, Assembly, MATLAB
Honors: *BSA Eagle Scout Award* (2017), *Ford Blue Oval Scholar* (2018), *James B. Angell Scholar* (5 terms, 2018-2021)