

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/Algorithms, Computer Organization, Embedded Systems, Computer Vision, Signals/Systems, Networks, Advanced Embedded Systems; Winter 2022: OS, Control 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

- Worked on the Pardot marketing automation team, developing a feature to migrate user configuration for the Pardot application into core Salesforce to enable a more unified admin experience
- Modified an existing data pipeline to support syncing of configuration information between apps, developed classes to build API payloads, designed configuration files to map data to a DB schema, and implemented UI functionality to allow for user modifications
- Feature decreased sync times of configuration data from 6 hours to seconds

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

PROJECTS

Occupancy Monitoring System

September – December 2021

- Developed a system of self-sufficient IoT devices to actively monitor workspace occupancy in libraries and offices
- Responsible for designing and writing interfaces for sensor interaction and Bluetooth Low Energy transmission
- Optimized system for low-power constraints by modifying BLE characteristics and controller clock configuration
- Contributed to PCB design, software infrastructure for Wi-Fi base-station, and cloud storage configuration

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

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, Arduino, FreeRTOS, Linux, Assembly, Node.js, MongoDB, Verilog

Honors: BSA Eagle Scout Award (2017), Ford Blue Oval Scholar (2018), James B. Angell Scholar (5 terms, 2018-2021)