

ANTHONY MASSAAD

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EDUCATION

Carleton University

Bachelor of Software Engineering with Co-op

- CGPA: 10.25/12 (A-)

September 2019 – April 2024

Ottawa, ON

SKILLS

Languages: JavaScript, Python, HTML, CSS, PHP, Java, C, SQL, JSON, XML, Ejs, Makefile

Tools and Frameworks: Git, NoSQL, Linux, IntelliJ, Visual Studio Code, PyCharm, Node.js, Express, Socket.io, React, TypeScript, SCSS, NextJS, UNIX, React-Native, Docker, Jira, Prisma, Spring Boot, Expo

Soft Skills: Time Management, Teamwork, Communication, Problem Solving, Leadership, Accountability, Quality assurance.

Concepts: Software Design Patterns, Object Orientated Programming, Operating Systems, Data Modelling, Data Architecture, Internet Protocols, Machine Learning

PROJECTS

Music Genre Classifier ([GitHub Link](#)) — Python, Machine Learning, Deep Learning, Transfer Learning **Apr. 2024**

- Developed a machine learning model using a combination of Convolutional Neural Network and a Support Machine Vector to classify audio files to their Genres.
- Used Transfer Learning through a pretrained model tuned to work with the problem at hand.
- Used tuning techniques like Grid Search to optimize both models for better performance.

Access Control System ([GitHub Link](#)) — Python, JSON, RBAC, Access Control Matrix **Sept. 2023**

- Simulates a simple login system for Finvest Holdings that allows users to register, and login based on their various roles. The users are given different permissions based on their roles.
- User Credentials are secured and hashed with a 32-byte salt. System also enforces password rules for strong passwords.

Real-Time Elevator Simulator ([GitHub Link](#)) — Java, UDP, State Machine Design Pattern **Jan. 2023**

- Simulated a real-time elevator control system using Java threads, while following the state design pattern
- Utilized the User Datagram Protocol (UDP) to connect the separate components (floor, scheduler, and elevators) through the network. Either the components can be on the same machine, or separate machine if address is specified.

Real Time Chat ([GitHub Link](#)) — Ejs, CSS, JavaScript, Node.js, Socket.io, Body-parser, Express **Apr. 2022**

- Created interface using Ejs, CSS and JavaScript that allow users to have a real time conversation with other users that are connected to the same server.
- Created an easy-to-use interface to allow users to easily send messages and see how many users are in the same server. This interface designed to be accessible on any device (laptops, tablets, or phones).

Monopoly ([GitHub Link](#)) — Java, XML, Swing, Model View Controller Design Pattern **Dec. 2021**

- Developed an object orientated - Java based application of the game Monopoly, which follows the MVC design pattern, which reinforces reliable and maintainable code.
- Used XML to implement save/load features, as well as custom boards.

Path Finding Algorithm ([GitHub Link](#)) — Python, Pygame, Priority Queue **Aug. 2021**

- Developed a Graphical User Interface using A-star algorithm and Pygame module to show the fastest path between two locations.

WORK EXPERIENCES

- Irdeto** **April 2023 – September 2023**
Software Developer **Ottawa, Ontario**
 - Worked with the Irdeto Reference Cloud App (IRCA) team in developing a web application using NextJs and TypeScript.
 - Worked with Amazon Web Service (AWS), Microsoft Azure and Auth0 authentication.
 - Implemented many web pages including an internationalization page to help with creating unique translations for the content of the website, with the base language being English. This solution was then used in many other web applications at Irdeto.
 - Also contributed to creating a Irdeto website component library using TypeScript to have pre-defined web components and functionalities that will assist in speeding up web development at Irdeto.
- Elections Canada** **November 2022 – October 2023**
Website Designer and Developer **Ottawa, Ontario**
 - Worked on a new website branch, Digital Enterprise Transformation Branch (DETB) using HTML, CSS, and JavaScript.
 - Have weekly meetings with key stakeholders to discuss their requirements to design and develop their webpages.
 - Created a script file for animating components on web pages using JavaScript.
- Irdeto** **September 2022 – January 2023**
Software Developer **Ottawa, Ontario**
 - Provided manual assistance in maintaining the test framework and machines.
 - Improved the logger implementation using python in one of Irdeto's software components, which enhance the logs more efficiently and effectively. This allows debugging to be much easier.
 - Aided in one of the major product releases to a client, which resulted in developing in C and in Makefile to support a dialect.
 - In a team collaboration during corporal hackathon, we developed a slack bot using python to help track Merge Requests (MR) from GitLab. This is done by sending a daily list of pending MRs, as well as post into a specified channel of MRs sent. This helps keep organization and ensure everything is reviewed.
- Elections Canada** **January 2022 – August 2022**
Website Designer and Developer **Ottawa, Ontario**
 - Using web programming languages (HTML, CSS, JavaScript, and JavaScript libraries), I develop webpages for the Digital Transformation Branch. This includes web pages for the change management team, project management team, Data Management Centre of Expertise...etc.
 - Have weekly meetings with key stakeholders to discuss their requirements to design and develop their webpages.
 - Developed a search algorithm for the Digital Transformation Branch to locate content much easier.
 - Create a custom style sheet and JavaScript file for the Digital Transformation Branch, which allows any developer to easily create custom components and animations.
 - Using PowerApps, I developed a form to automate our team's weekly updates. This form has reduced the volume of emails and eliminated the need to manually gather the team's information. developing new skills, as well as showing and enhance my current skills either.