Mahan Maalekian

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EDUCATION

McGill University

Montreal, QC

 $B. Eng. \ \ Software \ \ Engineering \ \ Co-op \ | \ \ Minor \ \ Applied \ \ Artificial \ \ Intelligence$

Aug. 2023 - May 2027

• 3.95/4.0 CGPA | J.W. McConnell McGill 3000\$ Scholarship

TECHNICAL SKILLS

Languages: Java, Python, C, C++, C# (.NET), TypeScript, JavaScript, SQL, VHDL, ARMv7 assembly, Bash

Tools: Git, Docker, Maven, Gradle, Postman, Linux, Azure, Jira

Libraries/Frameworks: Spring Boot, Hibernate ORM, React, Angular, Vue, Django, Pandas, Numpy

EXPERIENCE

Intact - intact.ca

Montreal, QC

Software Developer Intern

May 2025 - August 2025

- Contributed to the launch of Intact's quote portal in the Canadian Atlantic provinces by developing Spring Boot
 API endpoints that enforce province-specific regulations and insurance coverages, enabling access for an estimated
 100,000 new customers.
- Refactored a large-scale **Angular** web application by converting 70+ **UI** components into standalone modules decoupled from any services, making them $\sim 50\%$ quicker to reuse and drastically improving the application's maintainability.
- Developed and deployed **20+ norms** for a **Spring Boot** rules-engine service that applies customer-specific business logic to **15,000+ insurance contracts** per day by factoring things such as client history and insured assets.

Novatek International - <u>ntint.com</u>

Montreal, QC

Backend Software Developer Intern

May 2024 - August 2024

- Independently modeled and developed a **RESTful API** in **ASP.NET** (C#) for the settings page of a web application, allowing **thousands of employees** from 100+ **pharmaceutical/biotech companies** to configure account settings and customize preferences.
- Created MSSQL Server scripts to create the necessary schema and tables for the settings management functionality. Used Entity Framework Core to then generate corresponding C# model classes from the MSSQL Server database.
- Set up and configured a **SonarQube** database and server, and then integrated **SonarQube** into the team's main **CI/CD pipeline** on **Azure DevOps**, enabling the detection of **2000+ code smells** and reducing production bugs by **20%** across **5 projects**.

Projects

McGill Robotics Rover Software Engineer

React (TypeScript), ROS, Python, C++

- Developed a control interface for the rover in **React**, enabling real-time robot navigation by displaying GPS coordinates, location tracking, and velocity data, while providing manual control capabilities for competition environments.
- Engineered drive control systems for the rover using **ROS** in **C++** and **Python**, implementing publishers, servers, and control protocols to manage responsive wheel movement during competitions.

CHIP-8 Emulator | GitHub

C++, C, STM32

- Developed a CHIP-8 emulator in C++ for an STM32 microcontroller, integrating a lightweight keypad and OLED display to create a portable retro gaming console that can run any CHIP-8 game.
- Programmed drivers in **C** for both the keypad and OLED display. Integrated them into the emulator code to allow for real-time input from the keypad and output to the OLED display.

Vanier Exam Scheduler | vanier-scheduler-railway.app | GitHub

Django, HTML/CSS, JavaScript

• Designed and deployed a final exam scheduling tool that is used by 150+ Vanier College students every semester to effortlessly search for their final exams, add them to their schedules, and export them to their preferred calendar. Built using Django for the backend and vanilla HTML/CSS + JavaScript for the frontend.