Adam Al-Attrach

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EDUCATION

McGill University

Sept. 2021 - Dec. 2025

Bachelor of Arts in Computer Science, Minor in Statistics

Montreal QC, Canada

EXPERIENCE

Fullstack Developer | MySQL, PHP, JavaScript

May 2025 - August 2025

Montreal Neurological Institute-Hospital

Montreal QC. Canada

- Developed full stack web application in line with customer demands while providing updates, proofs of concept and demos during development
- Plan, code, test, debug and support software for a web-based neuroinformatics research platform
- Contributed to the development and maintenance of a large-scale software system with 100,000+ users
- Resolve issues for customers live and demo features to stakeholders

Fullstack Developer | Next.js, Tailwind CSS, Framer Motion, Sanity CMS

June 2024 - August 2024

SustainSys

Montreal QC, Canada

- Designed and built a web application to serve as a hub for SDSDS CREATE (Sustainable Data Systems for Data Science), using Next.js, Tailwind CSS and Framer Motion
- Integrated Sanity Content Management System to streamline updating content (team members, events, etc.) in the database without the need for code changes or redeployment

Software Developer Intern | Terraform, AWS, Playwright, React

Sept. 2023 - April 2024

Montreal QC, Canada

Coveo

- Designed and implemented scalable cloud infrastructure using Terraform, leveraging Amazon S3 for efficient storage of automated testing dashboards hosted on CloudFront
- Leveraged GitHub Actions and React to develop a real-time dashboard, providing comprehensive insights into the outcomes of tests conducted within the last 30 days, allowing teams to tailor it to their own projects requirements
- Led a project to implement automated end-to-end tests in **Playwright** allowing an increase in quality of critical user journeys and functionality of web applications

Leadership and Extracurriculars

Website Lead | React, Bootstrap, Express.js, Sequelize ORM

Jan. 2023 - August 2023

- Developed a Full-Stack application in **React Typescript** with eye catching user friendly styling with **Bootstrap**
- Worked on user registration and team creation endpoints in Express.js and Sequelize
- Performed code reviews on peers' work and conducted weekly meetings
- Spearheaded the development of a Team Browser feature with Discord profiles as interface for team operations

Projects

C Compiler | Java, MIPS Assembly

- Developed a compiler for a subset of C, supporting pointers, recursion, structs, and memory allocation
- Implemented a Parser, Abstract Syntax Tree + Semantic Analyzer, Code Generator, and Register Allocator
- Generated MIPS assembly code executable in a simulator, enabling compiled C programs to run on a RISC architecture

CHIP-8 Emulator $\mid C++$

- Emulated the CHIP-8 system, implementing a monochrome display
- Implemented an 8-bit stack pointer, sound timer, and delay timer, along with 16 input keys
- Developed functionalities for loading ROMs, fonts, and opcode instruction handling
- Utilized a function pointer table for opcode decoding and executed the fetch-decode-execute cycle

TECHNICAL SKILLS

Languages: C++, Java, Python, C, JavaScript, HTML/CSS, OCaml, TypeScript, JavaScript, R

Frameworks: React, Next.js, Node.js, Flask, Material-UI, Bootstrap, TailwindCSS, Express.js, Playwright

Developer Tools: Git, Bash, Github, Docker, Terraform