

Arneet Singh Kalra

Software Engineering Student

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EDUCATION

Bachelor of Software Engineering (B.Eng)

McGill University

09/2018 - 04/2022

Montreal, Canada

- CGPA: 3.68 / 4.00
- Minor in Biomedical Engineering

WORK EXPERIENCE

Software Engineer Intern

Publicis Sapient

05/2021 - 08/2021

Toronto, Canada

- Created an internal credit utilization monitoring tool for an industry-leading Canadian Banking client with the goal of reducing the CAM's waiting period by 90%.
- Developed a full-stack web application with React, Spring, and MSSQL, and utilized React-Bootstrap, Axios, and Victory in the frontend.
- Completed the project early and developed stretch insight and metric goals for the client.

Java Developer Intern

Grey-Box

01/2021 - 05/2021

Montreal, Canada

- Led a team of developers to create a Portable Dropbox interface for clients to upload custom files to the Android box hotspot. Developed using Java, Javascript, HTML, and CSS.
- Developed a Web Scraper in Python allowing users to download dedicated web pages including images and videos locally on to the Android box working effectively on 90% of tested websites.
- Worked in an Agile environment, with sprints lasting 2 weeks and providing demos at Scrum Meetings.

Demand Analytics Intern

Rogers Communications

05/2019 - 08/2021

Toronto, Canada

- Innovated a new visual representation estimated to reduce costs by 6-figures, by quantifying the call drivers of Rogers customers and developing predictive models for future demand.
- Findings being used to schedule an efficient amount of workers at centres for any given day and time, with findings distributed among a variety of departments.
- Produced dynamic data models using data visualization tools including Excel, PowerBi and Tableau.
- Data mining from Hadoop servers using SAS and SQL to organize Big Data.

TECHNICAL SKILLS

Java

React

SQL

Arduino

Firebase

C++

UML

Python

Eclipse

NodeJS

Express

PROJECTS

Recycling Pioneers (06/2020 - Present)

- Joined the student startup as a Software Engineer intern in Summer 2020, and stayed on to follow through with the project. Worked closely with McGill Buildings and Grounds to implement a smart waste platform to improve the present 27% waste diversion rate to a minimum of 50%.
- Programmed an ESP32 microcontroller in C++ in the Arduino IDE to receive input data from ultrasonic distance sensors and load cell amplifiers and store collected data in Firebase's NoSQL Realtime Database.
- Developed a ReactJS website for Recycling Pioneers with a Firebase backend. Used Bootstrap for CSS styling, and Victory for data visualization.
- Project recognized by University Advancement at McGill with a published article.

BioDesign: Glucose Level Transmitter (09/2019 - 08/2020)

- Designed a transmitter for glucose monitors worn by diabetic children in order to send patient data to medical professionals in realtime for constant surveillance.
- Developed an Android app in Java using Android Studio. Confidential patient data stored in a Firebase Realtime Database.
- Final product was to be used by Type I diabetic children at Camp Carowanis starting in Summer 2020: pushed due to COVID-19.

Quoridor Board Game Application (09/2019 - 12/2019)

- Developed Quoridor as a Java Application in Eclipse. Followed Behavior-Driven Development practices by using Gherkin Step Definition tests, written in Cucumber.
- Worked in a team of 6 members and used Git as our DVCS. Followed an Agile Software Development practice, with 5 sprints ranging 2-4 weeks.
- Developed a UML Domain Model and State Machine using Umple.

LEADERSHIP

Vice President Finance McGill BioDesign (05/2021 - Present)

In charge of maintaining the budget of the club for the year and ensuring we have enough capital to fund our projects. Also, fill out applications for funds and grants.

Vice President Sponsorship MEC (04/2020 - 05/2021)

VP in charge of acquiring sponsors for the McGill Engineering Competition. Create sponsorship packages and maintain a professional line of communication between the committee and financial sponsors. Our competition received EUS Event of the Year.

Finance Coordinator BioDesign (09/2020 - 05/2021)

Worked with the VP Finance to allocate budgets to the BioDesign Projects. In charge of receipts and documentation of club expenses.