

Arneet Singh Kalra

Engineering Student

Future Software Engineer in training. Currently interning at a social startup as a Java Developer. Self-driven student with a great attention to detail, natural curiosity for learning, and an urge to be challenged with new and innovative ideas.

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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

Java Developer Intern Grey-Box

01/2021 - Present

Montreal, Canada

A social innovation tech startup aiming to bring digital educational resources to rural and developing areas.

Achievements/Tasks

- 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.

Software Engineer Intern Recycling Pioneers

06/2020 - Present

Montreal, Canada

McGill Startup aiming to bring Smart Bins to the Downtown Campus

Achievements/Tasks

- 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.

Demand Analytics Intern Rogers Communications

05/2019 - 09/2019

Toronto, Canada

Canada's largest telecommunication company based on subscriptions

Achievements/Tasks

- 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

Agile Dev.

C++

UML

Android Studio

Python

Eclipse

NodeJS

Express

PROJECTS

UAEM PPE Trackers (05/2021 - Present)

- Developing a MERN (MongoDB, Express, React, NodeJS) full stack application for a McGill startup initiative.
- Provide medical personnel in the Montreal area with better access to PPE as they continue to fight COVID-19.
- Project pitched to a panel of John Hopkins public health experts and received positive recognition.

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

- Designing a transmitter for glucose monitors worn by diabetic children in order to send patient data to medical professionals in realtime for constant surveillance.
- Developing 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.

ORGANIZATIONS AND LEADERSHIP

Vice President Sponsorship MEC (04/2020 - Present)

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 - Present)

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

Marianopolis Finance Committee (08/2017 - 05/2018)

Met with club executives of the dozens of clubs at Marianopolis College to discuss details for allocation of grants and loans. Worked closely with the MSU President, VP, and VP of Finance.

LANGUAGES

English

Native or Bilingual Proficiency

French, Punjabi & Hindi

Full Professional Proficiency

INTERESTS

AI

Hockey

Travelling

ML

Piano