

# 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

## 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 Umlple.

## 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.*