

## EDUCATION

Bachelor of Software Engineering, McGill University, Canada

September 2017-December 2022

## RELEVANT WORK / INTERNSHIP EXPERIENCE

### Tech Rental Manager, Engineering Undergraduate Society, McGill

July 2021 – Present

- Implementing a tech rental website for students to rent computers and other gadgets.
- Designed User Interface using Figma & implemented the backend using Express JS and MongoDB database.
- Used HTML, CSS, and React JS framework for the frontend.

### Developer, Hack4Impact, McGill

September 2021 – Present

- Working in a team of 8 developers to develop a socially impactful technical project for a non-profit organization.

### Software Intern, Spreeha Bangladesh, Dhaka, Bangladesh

July 2019 – September 2019

- Implemented a multi-level access database containing details of incoming patients using PHP & MySQL and added a level of security using security injections.
- Improved the front end of the company website using HTML, CSS and JavaScript.

### EuGlide application

January 2021 – Present

- Currently, working in a team of 3 for my capstone project to build a web and android application for McGill Artificial Intelligence Pancreas Lab.
- Using Firebase and Realm for the backend of the website and React JS for frontend.
- Using Kotlin for the android application

## RELEVANT PROJECTS

### Quoridor Game

September 2019 – December 2019

- Implemented a Quoridor game in Java in a group of 5 members using the Model View Controller architecture and Java Swing for the UI.
- Used UML Class & State Machine diagrams for modelling and Cucumber for mapping Gherkin scenarios of the features of the game.

### EDvantage

September 2019 – December 2019

*Github Repo:* <https://github.com/McGill-ECSE321-Fall2019/project-group-20>

- Implemented a tutoring service website and an android app in Java in a group of 5 members in an agile environment that allows tutors to post their schedule, feedback to and from students and book rooms for classes.
- Wrote Junit tests for unit testing. Used Travis CI and Gradle for integration testing.

### Obstacle Course Game (personal project)

December 2019

- A video game in 3D designed and implemented using Unity Windows and C# where the player tries to reach the end of the track without colliding with any of the obstacles on its way or falling off the track.

### Flappy Bird Game (personal project)

December 2019

*Github Repo:* <https://github.com/mahroo12/Flappy-Bird>

- Implemented a game in Java where the player has to direct a bird that moves continuously to the right, to flap upwards against gravity and pass in between columns without touching them. Used Java Swing for the UI.

### Autonomous Robot

January 2020 – April 2020

- As a software engineer in a group of 6 members, I have programmed several tasks such as Odometry, navigation and Localisation of an EV3 robot in Java. We also worked on designing and constructing a machine that can autonomously navigate a closed course and rescue a stranded vehicle.

### Oddit Web Application

September 2020 – December 2020

- Implemented a budgeting Web Application for use by treasurers of SSMU clubs in a team of 9. This application allows its users to generate an audit adhering to SSMU guidelines with corresponding list of receipts, and an annual budget comparing expected and actual revenues/expenditures.
- Django framework was used for backend and React JS was used for frontend of the project.
- Gherkin scenarios were used for creating acceptance tests and Travis CI for integration.

### Lively – CodeToGive Hackathon

September 2021

- For a hackathon organized by Morgan Stanley, designed and Implemented a web application using React in a group of 7 that helps girls age (12-17) to find other students with whom they can play a sport of their desired choice and register in events organized by different schools.
- It helps students stay fit as now they are motivated to try out different sports regardless of having the equipment. It also motivates them to play more often as it gives them an opportunity to expand their social circle.
- The web app included features such as a chat feature that allowed students to finalize meeting date and time, calendar to keep track of events, map showing the location of events and a backlog to track their progress on a certain activity, activities page to post or find a new sport and events page to register for any upcoming events near them.

## **LEADERSHIP EXPERIENCE / EXTRA-CURRICULARS**

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### **VP of Communications for ELINE, McGill University**

**September 2022 -Present**

- Promoting ELINE events through ELINE's social media platforms, website & newsletter.

### **Member of McGill Rocket Team, McGill University**

**September 2020 -December 2020**

- In the rocket team's sub team avionic, worked in a team of 8 people on the Ground Station User Interface project where we help write the code to that helps to predict the landing location of the rocket to be able to recover it.

### **Member of McGill Debating Union (MDU), McGill University**

**September 2018 - present**

- Won Lev Buckhman 2019 Debate competition hosted by McGill University and made it to the top 10 teams of Seagrams ProAm 2019 Debate competition hosted by Waterloo University.
- Trained incoming novices of MDU on British parliamentary debate. Also, Judged High School British Parliamentary (HSBP) 2018, Winter Bonanza 2019 which are debate competitions for high school students and Winter Carnival 2019 which is an inter-university debate competition. They were all hosted by McGill University.

### **General Member of POWE, McGill University**

- Mentor to a Quebec college student, guiding her about the ins and outs of engineering in McGill.

## **SKILLS**

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- *Framework:* React JS, Vue Js, Firebase, MongoDB, Realm, Express
- *Technology:* Eclipse, Visual Studio, Git, GitHub, GitLab, Android Studio, Unity, Postman, Insomnia, Microsoft Office, Docker
- *Platform:* Heroku
- *Computer Language:* Java, C, C#, JavaScript, Node JS, Bash, PHP, HTML, CSS, VHDL, ARM Assembly, Python, Ocaml