

## EDUCATION

University of Toronto: 2<sup>nd</sup> Year Computer Engineering  
Bachelor of Applied Science – CGPA 3.87  
Expected Graduation: May 2023

2019 - Present

## SKILLS

- Experience programming in Kotlin, C++, and C
- Android Studio
- React, Node, Express, and MongoDB
- JavaScript, CSS, HTML
- Godot with GDScript

## PROJECTS

### Checked Android App – Kotlin, Jetpack, Room Database, MVVM

May 2020

- Built a native Android app which allowed users to create and manage daily tasks
- Designed and implemented a Room Database and Repository to store and save data locally on the device.
- Followed and applied MVVM architecture which resulted in isolation of non-UI logic in fragment and activity classes.
- Utilized system explicit Intents to request app actions to deliver a broadcast allowing the app to directly compose emails, and open URLs in default apps.

### Jotally Web App– React, Node, Express, MongoDB

July 2020 - Aug 2020

- Implemented a Single Page Application frontend using React where users can add, edit, and view notes.
- Designed and developed the backend REST API to receive requests for retrieving user notes, creating new notes, and authorizing user logins with JWT tokens and password hashing.
- Utilized and implemented MongoDB and Mongoose to save notes and user data to a database.
- Wrote integration tests for both the front and back ends to check functionality of the web app using Jest and Cypress.

### Prototype 2D Dungeon Game - GDScript, Godot Engine

Jun 2020

- Implemented player movement system and animations resulting in a player-controlled character and direction-based animations.
- Programmed hit and hurt boxes on players and enemies to detect box collisions indicating a hit on an entity.
- Designed and programmed a health and damage systems to detect player and enemy state and produce a more fleshed out game.

### Orthello Console Game and AI – C for APS105

Jan 2020 – Apr 2020

- Designed game logic and move finding algorithm based on looking ahead and heuristics which resulted in the AI placing 9<sup>th</sup> in the class.
- Researched and implemented algorithms like Mini-Max to predict future moves and choose best moves which resulted in a stronger AI.
- Planned and investigated heuristics such as emphasis on corner slots and opponent mobility enabling the AI to find the best move given any board state.

## EXPERIENCES

### Team Leader – APS111 ESP Design Team

Sept 2019 – Jan 2020

- Collaborated with team members to develop and design a solution to help protect Toronto Island residents from flooding threats.
- Showed leadership abilities through organizing meetings/work session and facilitating discussion regarding important decisions resulting in more productive meetings.
- Assigned and managed group tasks resulting meeting all deadlines without overworking team members.