# **Omar Khan**

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## **EDUCATION**

Honours BSc in Computer Science OGPA: 3.9 / 4

University of Calgary | Calgary, AB | Sep 2021 - Apr 2025

Awards: Faculty of Science Dean's List, NSERC USRA, Jason Lang Scholarship, Alexander Rutherford Scholarship

#### **WORK EXPERIENCE**

#### **Undergraduate Research Assistant**

Schulich School of Engineering | Calgary, AB | Jan 2023 - Present

- Research in digital twins, AR/VR and human-computer-interaction the HXI lab under supervision of Dr. Kangsoo Kim.
- Developed a web-app using ASP.NET, C# and JavaScript for the purpose of streamlining hazard inspections.
- Received the NSERC USRA award (\$7500) to fund the development of an AI virtual campus guide in the Unity game engine.

## **SKILLS**

**Languages** C#, JavaScript, Python, Java, Kotlin, HTML, CSS, ARM64 Assembly, Bash, LaTeX **Frameworks** React, ASP.NET, PyTorch, Three.js, Tailwind, Jetpack Compose, JavaFX, JUnit

Tools GIT, Unity3D, Android Studio, Visual Studio, PyCharm, IntelliJ, VSCode, Eclipse, XCode

Fields Web Development, Android, iOS, ML/CV

### **PROJECTS**

Calgary Drone Simulator o Game o Independent o <u>View on GitHub</u>

Oct 2022

- Developed a drone simulator set in a model of downtown Calgary that I built in Blender using real-world satellite data.
- Wrote C# scripts for handling drone physics and controls and other game interactions in the Unity game engine.

**UofCoach** ○ Web app ○ Collaborative (4) ○ <u>View on GitHub</u>

Calgary Hacks | Feb 2023

- Developed the frontend of a react app which connects tutors with tutees on my university campus.
- Assisted in the development of the backend in Flask (Python), MySQL and SQLAlchemy.

**POWER THRU** ○ Web app ○ Collaborative (3) ○ <u>View on GitHub</u>

Hack the Change | Nov 2022

- Collaborated in a group of three to build a 3D React app that aims to support those struggling with addiction.
- Designed and developed the 2D part of the UI and the app logic using JavaScript, React, and Tailwind CSS.

Calgary Connect 

Web / Android app 

Collaborative (9) 

View on GitHub

YYC Hacks | July 2022

- Built an application in a group of nine to inform tourists on events and attractions in downtown Calgary.
- Developed an Android component with Kotlin and Jetpack Compose, connected it to an events API and Google Maps.

Music Discovery App o Android app o Independent o View on GitHub

June 2022

- Developed 'Discover Electronic', an app to introduce users to electronic music and give them tailored recommendations.
- Designed a user interface and built it in Kotlin using the Jetpack Compose framework and the Android Studio IDE.

Prayer Time Retriever o Desktop app o Independent o <u>View on GitHub</u>

May 2022

- Built an Islamic prayer time retriever using Python to allow users to easily find prayer times for their location.
- Implemented a webscraping algorithm using the BeautifulSoup4 library to retrieve prayer times for any city in the world.

**2-Player Snake Game** • Web game • Independent • <u>View on GitHub</u>

Aug 2022

Re-created the snake game with a local multiplayer twist using JavaScript and CSS.