

Omar Khan

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EDUCATION

Honours BSc in Computer Science ○ GPA: 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, C, Java, Kotlin, HTML, CSS, ARM64 Assembly, Bash, LaTeX

Frameworks

React, ASP.NET, PyTorch, Three.js, Tailwind, Jetpack Compose, PyGame, JavaFX, JUnit

Tools

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

Fields

Web Development, Android, iOS, AI (machine learning & computer vision)

PROJECTS

Calgary Drone Simulator ○ Game ○ Independent ○ [View on GitHub](#) ○ [Watch video](#)

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) ○ [View on GitHub](#) ○ [Watch video](#)

Calgary Hacks | Feb 2023

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

Gesture-Controlled Game ○ Game ○ Independent ○ [View on GitHub](#) ○ [Watch video](#)

July 2023

- Developed a gesture-controlled arcade game in **Python**, powered by a computer vision AI via the **OpenCV** library.

POWER THRU ○ Web app ○ Collaborative (3) ○ [View on GitHub](#) ○ [Watch video](#)

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 **React (JavaScript)**, and **Tailwind CSS**.

Calgary Connect ○ Android app ○ Collaborative (9) ○ [View on GitHub](#) ○ [Watch video](#)

YYC Hacks | July 2022

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

Music Discovery App ○ Android app ○ Independent ○ [View on GitHub](#) ○ [Watch video](#)

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 ○ Desktop app ○ Independent ○ [View on GitHub](#) ○ [Watch video](#)

May 2022

- Built an app which uses a webscraping algorithm written in **Python** to retrieve Islamic prayer times for any city in the world.