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

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 View on GitHub

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 2023 | 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.