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

- 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.
- Participated in a weekly group-study seminar focused on computer vision and machine learning.

SKILLS

LanguagesC#, JavaScript, Python, C, C++, Java, Kotlin, HTML, CSS, ARM64 Assembly, Bash, LaTeXFrameworksReact, ASP.NET, PyTorch, Three.js, Tailwind, Jetpack Compose, PyGame, JavaFX, JUnitToolsGIT, Unity3D, Android Studio, Visual Studio, OpenCV, PyCharm, IntelliJ, VSCode, Eclipse, XCode

Fields Web development, Mobile app development, AI (machine learning & computer vision), XR development

PROJECTS

Calgary Drone Simulator o Game o Independent o <u>View on GitHub</u> o <u>Watch video</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)
 ○
 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 o Game o Independent o <u>View on GitHub</u> o <u>Watch video</u>

July 2023

• Developed a gesture-controlled arcade game in **Python**, powered by a computer vision 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 o Android app o Collaborative (9) o View on GitHub o 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 o Android app o Independent o View on GitHub o 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 ○ <u>View on GitHub</u> ○ <u>Watch video</u> May 2022

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