Jacob Mobin

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EDUCATION

Toronto Metropolitan University

Toronto, ON

Bachelor of Arts in Computer Science

Sep. 2024 - Present

• TMU Taekwondo, Google Developer Club

TECHNICAL SKILLS

Languages: Java, Python, ASM, HTML/CSS, C, Swift, JS

Frameworks: React JS, React Native, SwiftUI

Developer Tools: Git, VS Code, PyCharm, Jupyter Notebook

PROJECTS

Apple Intelligence WatchOS | Swift, SwiftUI, WatchKit, OpenAI API, Perplexity API

- Developed a standalone WatchOS app enabling live chats with personalizable AI agents.
- Optimized real-time speech recognition and tts, reducing average response time to 2s.
- Leveraged Perplexity API to speed up query handling with near-instant response times.
- Designed an Apple Intellignece like glow effect in SwiftUI to improve visual feedback during voice interactions.

Ability (Hackathon Project) | Python, Swift, Gemini API, Groq API, SceneKit, Bpy, Docker, FastAPI

- Created an iOS app that lets users generate 3D-printable assistive devices from simple text inputs.
- Automated .bpy model creation with Gemini and Groq APIs and a Python backend for rendering .obj files.
- Built a SwiftUI interface to guide users through model generation and refinement.
- Rendered dynamic 3D previews using SceneKit with real-time feedback optimization.

Minecraft Block GUI | Java, Java 3D API

- Developed a 3D visualization tool to sort, filter, and display 100+ Minecraft blocks.
- Built an interactive overlay showing block properties, crafting recipes, and metadata.
- Optimized 3D rendering for smooth navigation using mouse-driven controls in 2d and 3d scenes.
- Built responsive 3D visualization of blocks with interactive controls.

Assignment Tracker App $\mid iOS, Swift, SwiftUI, SwiftData$

- Built a SwiftData-powered app to track assignments with offline-first design and deadline sorting.
- Implemented natural language parsing to speed up event creation from spoken or typed input.
- Designed an accessible SwiftUI interface optimized for task review, edits, and tracking.
- Integrated iCloud with SwiftData to enable seamless data synchronization across devices.

EXPERIENCE

Summer Camp Counselor/Assistant Instructor

Jun. 2019 – Aug. 2023

Royal Taekwondo (Paid/Volunteer Positions)

Toronto, ON

- Engaged and motivated children aged 4-12 by teaching tackwood during dynamic summer camp sessions.
- Developed age-appropriate training modules that boosted confidence, discipline, and physical fitness.
- Fostered a fun, energetic learning environment while emphasizing safety, respect, and teamwork.

ACHIEVEMENTS

Coding/Data Science | Python, Artificial Intelligence, Machine Learning

- GenAI Genesis Hackathon Mar. 2025
- DS3 Datathon Feb. 2025
- 4th at Robotics for Space Exploration at University of Toronto Feb. 2024

Taekwondo | World Taekwondo Federation, Kukkiwon

• Achieved Second Degree Black Belt – Oct. 2021

Coaching | National Coaching Certification Program

• Achieved Assistant Instructor Coaching Certification with the Coaching Association of Canada – Mar. 2021