Jacob Mobin

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EDUCATION

Toronto Metropolitan University

Toronto, ON

Bachelor of Science 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, Node JS (Express), TailwindCSS, React Native, SwiftUI, SwiftData

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

Projects <u>Jacobamobin.github.io</u>

Rapid Resume | React.js, Node.js, Firebase, TailwindCSS, Chrome DevTools, Postman

- Launched a Chrome extension that uses an LLM to generate job-specific resume rewrites in one click.
- Built a Node.js/Firebase backend that parses resumes and streams LaTeX-styled, Base64-encoded PDFs.
- Designed Firestore schemas for user data and integrated Stripe for credit-based payments.
- Implemented Google Sign-In with Firebase, OAuth, JWT, and RESTful APIs to secure access.

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.

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 taekwondo 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 @ University of Toronto Mar. 2025
- DS3 Datathon @ University of Toronto Scarborough Feb. 2025
- 4th at Robotics for Space Exploration @ 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