

Ibrahim Majid

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EDUCATION

University of Toronto St. George, International Scholar, ASIP Stream

Toronto, Ontario

HBSc Computer Science, Bioinformatics and Statistics - Deans List Scholar x2

Graduation Date: Apr 2028

EXPERIENCE

Software Engineering Intern

July 2025 – Present

Topline Sports and Events

Dubai, UAE

- Deployed a full-stack court booking platform using **Next.js App Router**, **Firebase Firestore**, and **Stripe API**, supporting 100+ users with real-time slot availability and secure payments
- Built booking validation logic using Firestore **security rules** and **transactional writes** to prevent double-booking and ensure **99.9% accuracy** during concurrent reservation attempts
- Automated manual workflows by implementing custom booking logic and payment APIs, reducing admin overhead by \$100/month and doubling platform capacity for daily reservations
- Enhanced performance with route-based **code splitting** and **lazy loading**, cutting initial bundle size by **40%** and improving load speed across mobile and low-bandwidth devices

Research Assistant

June 2025 – Present

Lumba Lab, University of Toronto

Toronto, Ontario

- Developed scalable **Python** data pipelines using **Pandas** and **NumPy** to process 1000+ genomic records from Arabidopsis datasets, identifying high-impact SNPs and gene variants
- Built automated ETL workflows to integrate multi-source genomic databases (TAIR, 1001 Genomes), implementing fuzzy matching algorithms that improved data consistency by **95%**
- Linked Arabidopsis haplotype variation to climate variables using **CLIMtools**, uncovering genotype-environment associations

PROJECTS

GaiaScope – AI-Powered Climate Data Globe | React, Three.js, Gemini API [\[GitHub\]](#)

June 2025

- Built a dynamic 3D globe in **Three.js** visualizing pollution and climate metrics for 150+ countries using UN APIs
- Integrated **Gemini API** for AI-generated per-country climate reports, delivering insights
- Implemented **React hooks/context** for modular state management and reactive globe interactions

AI-Therapist Chatbot – Mental Health Web App | Python, Flask, React, HuggingFace [\[GitHub\]](#)

Dec 2024

- Developed a secure chatbot with **React frontend** and **Flask REST API backend** for real-time conversations
- Integrated **DialoGPT** to generate context-aware, empathetic responses tailored to user mood and history
- Optimized UX with async **fetch/axios**, cutting wait times by 20%, plus form validation and session management
- Built a multi-page app using **React Router** for persistent chat state across navigation

Wordle+ – Game with Social Features | Java, Swing, AWS [\[GitHub\]](#)

Oct 2024 – Dec 2024

- Created a custom **Java Swing** Wordle with keystroke input, validation logic, and dynamic word list
- Implemented secure **signup/login flow** using file-based tokens and hashed credentials
- Deployed an **AWS discussion board** for players to share scores and strategies
- Applied **SOLID design principles**, reducing class coupling and improving maintainability

TECHNICAL SKILLS

Languages: Java, Python, C, JavaScript, HTML/CSS, R, SQL

Frameworks: React, Node.js, Flask, JUnit, Swing, REST APIs, Tailwind CSS

Libraries & Tools: Pandas, NumPy, Matplotlib, HuggingFace, Three.js, Git, Gemini API, OpenAI API