Ibrahim Majid

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EDUCATION

University of Toronto St. George | International Scholar

Toronto, Ontario

HBSc in Bioinformatics, Computer Science and Statistics | Deans List Scholar $\times 2$

Graduation Date: Apr 2027

Experience

Research Assistant

June 2025 - Present

Lumba Lab - University of Toronto

Toronto, Ontario

- Analyzing Arabidopsis genomic datasets using R and Python (pandas, numpy) to identify genes involved in hormone signaling
- Built custom scripts to extract and match gene identifiers across datasets, improving data consistency for downstream analysis
- Contributed to figure generation and data cleaning for ongoing projects in plant molecular biology

Undergraduate Tutor

Aug 2024 – Present

Victoria College - University of Toronto

Toronto, Ontario

- Supported 30+ first-year students with personalized academic guidance
- $\bullet \ \ \text{Helped improve student understanding through concept breakdowns, practice problems, and assignment reviews}$
- Received positive feedback for clear explanations and helping students build confidence in technical subjects

Projects

AI-Therapist | Python, Flask, React, REST API, HuggingFace [GitHub]

 $Dec\ 2024-Jan\ 2025$

- Designed and implemented an interactive and responsive chat interface using React, enabling seamless user interactions and increasing user engagement by 30%
- \bullet Developed a Flask-based REST API to handle user inputs and generate dynamic responses, reducing server response time by 20% through optimized request handling
- Integrated HuggingFace's pre-trained conversational model to power the chatbot's NLP capabilities, enabling contextually relevant and empathetic responses
- Orchestrated the integration of a Python Flask backend with a React frontend, ensuring real-time communication and efficient data flow

GaiaScope | React, Three.js, Tailwind CSS, Gemini API, Python [GitHub]

June 2025

- Built an interactive 3D globe in React and Three.js to visualize real-time sustainability and pollution metrics across 150+ countries
- Processed and visualized country-level pollution data sourced from UN datasets, integrating Gemini API to generate AI-powered environmental summaries
- Designed a responsive and visually engaging dashboard using Tailwind CSS, focusing on accessibility, clarity, and user-driven exploration
- Implemented modular state management to efficiently handle country selection, data loading, and UI updates across components

Wordle-Clone | Java, Swing, AWS [GitHub]

Oct 2024 - Dec 2024

- \bullet Engineered a Java Swing-based Wordle clone with custom UI and keyboard interactions, resulting in a 95% user satisfaction rate among test users
- Worked on the integration of a cloud-based discussion board using AWS services, facilitating player collaboration and fostering community engagement.
- Implemented robust signup/login functionality with secure authentication, streamlining user onboarding and supporting personalized gameplay experiences.
- Optimized application architecture using SOLID principles and design patterns, reducing code complexity by 30% 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