TAHA YAR KHAN

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TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, TypeScript, CSS, HTML, Bash, C, C++, C#, Rust, Haskell
- **Frameworks & Libraries:** React, Angular, Node.js, Express.js, Flask, JWT, TensorFlow.js, Scikit-learn, NumPy, Pandas, Axios
- **Databases:** SQL, PostgreSQL, MongoDB, DynamoDB, MySQL
- **Tools & Platforms:** AWS, Docker, Git, GitHub, Postman, Selenium, JMeter, REST API, RESTful API, Unix/Linux, Google Suite, Microsoft 365

EXPERIENCE

Software Development Engineer | BMO (Bank of Montreal) **Jan 2025 - Present**

- Built an admin onboarding system for Zelle payments using React, API Gateway, and AWS Lambda, enabling the operations team to efficiently manage customer accounts and reducing manual onboarding effort by **30%** .
- Developed a CloudWatch alarm management dashboard with real-time alerting and monitoring features, improving incident response time for the payments team by **25%** .
- Designed and deployed serverless APIs on AWS Lambda and API Gateway to support payment workflows, ensuring secure and scalable data interactions across teams.
- Integrated AWS S3 and CloudWatch into the application stack for storage, logging, and monitoring, enhancing system reliability and visibility.
- Collaborated in an agile team to deliver production-ready features, conducting peer code reviews and optimizing deployments for scalability in a high-availability financial environment.

Software Engineer | MAX **May 2024 - Aug 2024**

- Built scalable components with React and JavaScript, implementing secure authentication and validation, enhancing user experience.
- Designed and integrated RESTful APIs, improving frontend-backend communication and reducing latency by **25%** .
- Leveraged AWS services such as Lambda, S3, and DynamoDB to build serverless backend features, including user data storage and authentication workflows, improving system scalability and maintainability.
- Tested API endpoints with Postman, ensuring backend correctness and reducing production bugs by 30%.

PROJECTS

CarbonX - JavaScript, Axios, React, Vite, Node.js, Express, MongoDB, REST API **Apr 2025**

- Developed a RESTful API using Express and MongoDB for user authentication, footprint tracking, and carbon footprint comparisons.
- Integrated Axios with JWT authentication for secure data fetching, reducing retrieval time by **40%** and better model training efficiency.
- Designed and integrated endpoints for tracking water, electricity, and car usage, enabling personalized carbon footprint calculations.

Insight: AI Investment Chatbot - Python, Flask, JavaScript, React, Cohere API, Axios, Tailwind CSS, Vite, CORS **Apr 2025**

- Developed a full-stack AI investment chatbot using Cohere's LLM, Flask, and React, enabling real-time query handling.
- Enhanced user experience by **60%** with optimized Axios-based API calls, dynamic state management, and interactive UI components.
- Streamlined prompt pipelines and integrated command-r, reducing response time by **50%** and consistently delivering replies under **3 seconds** .

Credit Card Fraud Detector - Python, Scikit-learn, Cohere API, NumPy, Pandas, Streamlit, Plotly, Matplotlib, joblib **Mar 2025**

- Achieved **95%** accuracy by training a Random Forest model using stratified sampling and scaled features on fraud data.
- Improved fraud explainability by integrating Cohere's LLM API to generate natural language justifications for predictions.
- Reduced analysis time by **30%** by building an interactive Streamlit dashboard with batch prediction uploads and real-time visualizations.

Skill-Match - JavaScript, React, Vite, Tailwind CSS, Python, Cohere API, Supabase SQL, JMeter, BCrypt **Dec 2024**

- Developed an AI volunteer matching platform with Cohere API, improving match accuracy by **30%** based on student skills/interests.
- Implemented authentication with access control, ensuring data protection, while supporting **10,000+** concurrent users.
- Built a responsive platform with **95%** of interactions under **2 seconds** , using Row-Level Security for efficient data management.

EDUCATION

- **Toronto Metropolitan University (Formerly Ryerson University) - Bachelor of Science, Computer Science 2022-2026**
- **CGPA:** 3.40/4.33
- **Relevant coursework:** Object-Oriented Programming, Data Structures, Algorithms, Operating System, Software Engineering, Web Development, Machine Learning, Artificial Intelligence, Database Systems

CERTIFICATIONS

[Google Cloud Skills Boost] Introduction to Generative AI **Apr 2025**

- Including the fundamentals of large language models, responsible AI, and generative AI use cases using Google Cloud tools.