TAHA YAR KHAN

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TECHNICAL SKILLS

- **Languages:** Python, Java, JavaScript, CSS, HTML, Bash, C, C++, Rust, Haskell
- **Databases and Data Management:** SQL, MongoDB, NumPy, Pandas, TensorFlow.js, Scikit-learn
- **Tools and Frameworks:** React, Chakra UI, Material-UI, Bootstrap, Tailwind, Node.js, Express.js, Mongoose, JWT, Flask, Docker, Git, GitHub, Postman, Selenium,Plotly, Matplotlib, Streamlit, JMeter, BCrypt, Linux, Windows, macOS, Visual Studio Code, Figma, REST API, RESTful API, Axios, Jira, Google Suite, Microsoft 365.

EXPERIENCE

Technology Research Analyst | BMO (Bank of Montreal)　　　　　　　　　　　　　　**Feb 2025 - Present**

- Developed **web scraping** solutions using **Selenium** to **extract data for 1,000+ companies** enhancing **automation and scalability**
- **Increased scraper accuracy by 55%**, ensuring **higher reliability and precision** in extracted **financial and employment data**.
- **Automated news tracking for 3-day news insights** by building a system to parse, classify, and append RSS data into formatted **Excel**.
- Extracted relevant keywords with **80%+ match accuracy** by engineering an **NLP pipeline** using **zero-shot classification** and **Hugging Face Transformers**.

UI/UX Developer | BMO (Bank of Montreal)　　　　　　　　　　　　　　　　　　**Jan 2025 - Present**

- Designed and developed **custom web components** for BMO's innovation platform, **improving interface functionality and scalability**.
- **Accelerated sprint progress** within tight deadlines by **developing prototypes**, **reducing time spent on design validation**.
- **Optimized platform responsiveness by 20%**, ensuring **smoother UI**, **enhanced UX**, and **reduced load times by 30%**.

Software Developer Intern | MAX　　　　　　　　　　　　　　　　　　　　　**May 2024 - Aug 2024**

- Developed login and signup components with **React** and **JavaScript**, enhancing **authentication workflows** and **form validation**.
- **Integrated REST API**, optimizing **data flow** for **real-time updates** and efficient communication between client and server.
- Wrote **Lambda functions** for the **AWS SAM Application**, optimizing back-end processes and improving system scalability.

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:** OOP, Data Structures and Algorithms, Software Engineering (Agile methodologies), Operating Systems, Probability and Statistics, Machine Learning, Artificial Intelligence, Database Systems, Data Analytics, Data Visualization and Computer Security.

CERTIFICATIONS

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

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