

Zayed Umer

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TECHNICAL SKILLS

- **Languages:** Python, Java, C, C#, C++ SQL, R, HTML, CSS, JavaScript, Shell, Powershell, Verilog, Assembly, MatLab
- **Technologies:** ASP.NET, MVC Framework, Postman, JIRA, SonarQube, Docker, React, SciKit, Computer Vision, Linux, JUnit, IBM Watsonx, IBM Garage, IBM DB2, Microsoft Azure
- **Project Management:** Agile Methodologies, Kanban, Waterfall

EXPERIENCE

- **Royal Bank of Canada** | C#, .NET, REST API Toronto, ON
May 2024 - August 2024
Software Engineer Intern
 - **Full Stack Application Development:** Developed a **full-stack** application using **C#, ASP.NET MVC framework**, and **HTML, CSS** and **Javascript** implementing **CI/CD** pipelines for sensitive RBC server management, resulting in a **70%** increase in server maintenance efficiency across Southern Ontario RBC servers.
 - **Data Caching:** Implemented advanced **data caching** strategies, including distributed caches, resulting in an approximate **2700x** performance improvement in page render times and **API** data retrieval, significantly enhancing user experience and system performance.
 - **Automation:** Conceptualized and executed automation of complex and sensitive server management tasks for RBC employees, projected to save over **\$200,000** annually in operating costs, **90+** hours per week in maintenance time, and reduce maintenance request turnaround time from weeks to minutes.
 - **REST API:** Developed a **REST API** and **front-end UI** using **C#, ASP.NET**, and **Javascript** for complex, sensitive business operations across all **SDLC** servers, projected to save employees **150+** hours in maintenance time and significantly mitigate operational risks.
- **LocoMobi World Inc.** | Python, Linux, IoT Mississauga, ON
May 2023 - August 2023
Software Developer Intern
 - **Software Development:** Developed monitoring programs for **IoT** devices using **Python** and **Linux**, which alerted the company of failures. Streamlined operations at **100+** client sites, increasing client troubleshooting efficiency by **45%** and mitigating risk.
 - **Quality Assurance:** Created **150+** test cases for hardware and software using **TestFlight**. Managed updates and issue tracking using **Agile** Methodologies. Logged and resolved **200+** bugs using **JIRA** for a mobile app within **30 days**. Managed releases and updates of critical business modules, adhering to strict deadlines.
 - **Automation :** Developed automated routines for **Linux** and **Windows** systems. Implemented data cleaning scripts for **50+ Linux-based Raspberry-Pis**, optimizing costs by 20% and maintaining a sanitary environment.
- **Data Cleaning Coordinator** | Relational Database Management Toronto, ON
June 2021 - August 2021
Spinal Cord Injury Ontario
 - **Data Integrity:** Digitized **80%** of documents and transformed the unstructured data to a structured relational database for faster access and queryability.

PROJECTS

- **Sign Simplified** Top 10 at DeltaHacks X
 - Was selected as a **top 10 overall** project at Delta Hacks X and was the **highest ranked solo project** in the **Hackathon**.
 - Developed a **computer vision** project in **Python** for real-time ASL character recognition, achieving an accuracy score of over **95%**, using **TensorFlow** and **OpenCV**.
 - Languages and Modules Used: Python, NumPy, Matplotlib, TensorFlow, Pickle, SciKit Learn, OpenCV.
- **Pocket Trader**
 - Developed a **machine learning** trading algorithm using **PyTorch**, incorporating sentiment analysis with Hugging Face's **Transformers**, resulting in a **15%** increase in trade accuracy and an average **20%** annual return.
 - Integrated **Alpaca Trading API** and **YahooFinance** for real-time data processing, improving trading decision speed by **30%**.
 - Automated trade execution using **Lumibot**, reducing manual intervention by **90%**.
 - Developed a **full-stack Flask** web app for backtesting trading algorithms, supporting years of historical data, enhancing decision-making accuracy.
 - Technologies Used: PyTorch, Hugging Face Transformers, Alpaca Trading API, YahooFinance, Lumibot, Flask, Python.
- **AI Financial Assistant**
 - Developed a user-friendly chatbot using **OpenAI** and **Streamlit** for stock market information, featuring real-time data, interactive charting, and **natural language processing**.
 - Modules and libraries: OpenAI, Pandas, YFinance, Matplotlib, and Streamlit.
- **Personal Website**
 - Designed and developed a visually captivating, responsive personal portfolio using **HTML5, CSS3, React**, and **JavaScript**, attracting over 1000+ unique visitors.
 - Technologies used: HTML5, CSS3, React, and JavaScript.

EDUCATION

- **McMaster University** Hamilton, ON
Bachelor of Software Engineering
CGPA: 3.7 Dean's List 2023 - 24
Relevant Courses: Data Structures and Algorithms, Object Oriented Programming, Software Design Expected Graduation: April 2026
- **Albert Campbell CI** Toronto, ON
Class Valedictorian 2018 - 2022