Mosa Yaqoobi

(825) 706-1077 | Email | Github | Website

Education

- **University of Alberta** Sep 2022 – Present
  Bachelor of Science with Specialization in Computing Science
  Relevant coursework: Data Structures And Algorithms, Basics Of Machine Learning, Introduction To Linear Programming, Optimization in Machine Learning, Introduction To File And Database Management, Discrete Mathematics, Numerical Methods, Advanced Algorithms, Optimization in networking Systems
- **Red Deer Polytechnic** Completed
  Electrical Engineering Technologist
  Relevant coursework: C/C++ in embedded systems, PLC and Control, SCADA and HMI

Experience

University of Alberta Oct 2022 – Apr 2023
Undergraduate Research Work — Edmonton, AB
– Developed a Python-based system to detect and analyze brainwave patterns using an EEG headset, enabling real-time neurofeedback and external device control.
– Implemented a PyQt6-based user interface to display EEG signals dynamically and provide actionable insights through neurofeedback.

Projects

ApplicationHub — *Next.js, Node.js, mongoDB, tailwindCSS, Chrome Extension API*
– Developed an automated job tracking system combining a Chrome extension with a Next.js dashboard, eliminating manual tracking and streamlining the application process
– Built Chrome extension to capture application data automatically, reducing manual tracking time by 100
– Implemented MongoDB database schema with RESTful API endpoints, managing application CRUD operations and powering interactive dashboard visualizations

Full Stack Mock Library System — *Node.js, Express.js, mongoDB, CSS/HTML, React*
– Designed and implemented asynchronous RESTful APIs using Express.js / Node.js for user and book management, enabling real-time book reservations in under 100ms and supporting hundreds of concurrent users.
– Optimized mongoDB queries with indexing and schema design improvements, resulting in faster search and retrieval of records.
– Automated the testing workflow through a GitHub Actions CI/CD pipeline, reducing manual testing time and improving code reliability.

Apple Quality Model — *Python, Pandas, Matplotlib, Scikit-Learn, Google Collab*
– Built a classification model to predict apple quality using logistic regression and decision tree algorithms.
– Implemented logistic regression for binary classification of apple quality (good quality (1) or bad quality (0)).
– Utilized decision tree algorithm, random forest, and simple logistic regression to enhance prediction accuracy.

Event Lottery System — *Java, Firebase*
– Led a team of 5 members to design and implement the Event Lottery System Application, ensuring efficient task allocation, code reviews, and project delivery on schedule.
– Integrated QR code scanning for event details and Firebase for secure, real-time data management.
– Improved user experience with a notification system, sending instant alerts to participants.

Technical Skills

Languages: Python, C/C++, R, SQL, Julia, Java, Javascript(JS), Typescript(TS), HTML/CSS
Developer Tools: Github, Git, Visual Studio Code, Google Collab, Android Studio
Libraries: NumPy, Matplotlib, Scikit-Image, Scikit-Learn, Math, Pandas, React.js, Express.js, Node.js, Next.js