Mosa Yaqoobi

(825) 706-1077 | Mosayaqoobi@gmail.com | Github | Website

EDUCATION

University of Alberta — Alberta, Canada
Bachelor of Science with Specialization in Computing Science — *Present*
Relevant coursework: Data Structures And Algorithms, Basics Of Machine Learning, Introduction To File And Database Management, Digital Image Processing, Discrete Mathematics, Introduction To Optimization, Numerical Methods

Red Deer Polytechnic — Alberta, Canada
Electrical Engineering Technologist — *completed*
Relevant coursework: C/C++ in embedded systems, PLC and Control, SCADA and HMI

EXPERIENCE

FACULTY OF SCIENCE (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

Library Management Database System | *Python, SQL*
- Developed a database management system utilizing SQLite and integrated it with Python, adhering to specified relational schema and SQL commands.
- Orchestrated group collaboration within a team of 3-4 members to ensure equal contributions and successful project completion.
- Implemented a command-line interface for efficient user interaction and task execution, focusing on user login, registration, and logout functionalities.

Apple Quality Model | *Python, Pandas, Matplotlib, Scikit-Learn, Google Collab*
- Developed a machine learning model to predict the quality of apples using Python and relevant libraries.
- Implemented logistic regression for binary classification of apple quality (good quality(1) or bad quality(0)).
- Utilized decision tree algorithm, Rain forest, and simple logistic regression to enhance the prediction of the quality of the model.

Social Networking Platform | *Python, Django, GitHub, SQLite*
- Developed a distributed social network that allows authors to post, follow, and interact across decentralized nodes, replicating features of modern social platforms
- Optimized API response times by about 30% using query optimizations and indexing in PostgreSQL.
- Enforced secure node-to-node communication using HTTP Basic Authentication for federated social media.
- Built a REST API for post sharing, following users, and federated node communication.

Event Lottery System Application | *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.
- Implemented features like QR code scanning for event details and integrated Firebase for secure, real-time data management, achieving 100% uptime and ensuring instant notifications for selected entrants.
- Improved user experience with a notification system, sending instant alerts to participants, which increased event engagement by 20%.

TECHNICAL SKILLS

Languages: Python, C/C++, R, SQL, Julia, Java, JS
Developer Tools: Github, Git, Visual Studio Code, Google Collab, Android Studio
Libraries: NumPy, Matplotlib, Scikit Image, Scikit Learn, Math, Pandas