MALIFU ZEMECH

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Education

George Mason University **Sep 2019 – May 2023**
Bachelor of Science in Computer Science *Fairfax, VA*

Experience

CIBT Inc. **May 2022 – Dec 2022**
Software Engineer Intern *McLean, VA*

- Drove the development and maintenance of a globally-utilized client portal for seamless processing of passport, visa, and travel services, meticulously following Agile Software Development Life Cycle principles
- Engaged in cross-functional collaboration with the design team, leading to the implementation of a sophisticated UI using React.js. This enhancement resulted in a commendable 70% improvement in user engagement metrics, providing clients with transparent tracking of their Visa application progress.
- Optimized legacy code that used SOAP with a RESTfulAPI web service using Java Spring frameworks such as Hibernate and Spring MVC in conjunction with a React.js front-end, which reduced load time metrics by 40%.
- Leveraged Git and JIRA in an agile setting for streamlined development, effective version control, issue tracking, incorporating feedback, and enhancing overall functionality.

George Mason University **Sep 2020 – Jan 2021**
Research Assistant *Fairfax, VA*

- Investigated solutions to address the psychological impact of social isolation on community members.
- Employed the PsychoPy Python cross-platform library to analyze behavioral data from subjects in the field of behavioral sciences.
- Led coordinated efforts amongst fellow researchers for discussions, meetings, and presentations.
- Automated the delivery of comprehensive research results through written reports generated in Excel (xlsx).

Projects

Loyalty First Customer Program | *Android Studio, Java, Netbeans, Git* **Aug 2022 – Dec 2022**

- Led and managed a dynamic team of 4 throughout the entire project lifecycle, ensuring seamless collaboration and effective communication with stakeholders.
- Engineered a robust relational database system, resulting in a 20% improvement in data retrieval efficiency, as measured during user acceptance testing.
- Applied advanced security measures, including encryption protocols and user authentication, to safeguard sensitive user data and enhance overall system security.
- Collaborated closely with UX designers to integrate user-centric design principles, resulting in a highly intuitive and engaging interface for the Android application.

Heart Disease Predictor | *Python: Pandas, NumPy, PyTorch, SKlearn, Git* **Jan 2023 – May 2023**

- Coordinated weekly meeting with a group of three to research an optimal heart failure prediction model.
- Utilized Python libraries to develop six different models to analyze our data sets, attempting to draw a correlation based on our patient's data
- Implemented KNN and Decision tree models to compare and determine the best accuracy.
- Took advantage of pre-processing methodologies to improve data fairness and accuracy: K-fold, fairness matrix, PCA
- Achieved a prediction accuracy as high as 93%, for a linear regression model, and as low as 63% using a decision tree without pre-processing.

Technical Skills

Frameworks: Android Studio, React, Spring boot, MariaDB
DevOps and Version Control: Git, Jenkins, Docker, Apache Tomcat, AWS cloud, GitHub, Firebase, Bitbucket
Languages: Python, Java, C, JavaScript, HTML/CSS, MySQL

Relevant Coursework

- Data Structures
- Software Methodology
- Algorithms Analysis
- Numerical Analysis
- Data Mining
- Database concepts
- Systems Programming
- Operating System