MUHAMMED SHANFER MAJEED

Tempe, AZ, 85281| mmajeed2@asu.edu| LinkedIn: Shanfer Majeed| GitHub: shanfer1 | (623) 273 - 9955

PROFESSIONAL EXPERIENCE:

Software Engineer: Arizona State University **Tempe, Arizona | Jan 2023 – Present**

- Spearheaded web development of Geo Visualization tool with **Angular, Flask**, **Chart.js**, **Python** to represent US ecological data.
- Engineered a mental modeler prototype using a novel LSTM neural network incorporating bespoke influence parameters for enhanced predictive analytics by data modeling using **React, Python, Neural networks, LSTM, AWS, PostgreSQL** Membership
- Developed a cross-platform mobile application for adaptive Fitness training on android and iOS, utilizing application development best practices and bdd for fitness recommendations, built with **Android Studio, TensorFlow, Java.** Github
- Analyzed **NLP** model bias via tweet topic classification exposing **15%** sentiment analysis accuracy variation from unbiased references by different model training (**CNN, SVM, Random Forest, Linear Regression, Decision Trees** Github)
- Scraped and visualized Twitter friendship network of pro and anti COVID19 vaccination promoters using **NetworkX, Gephi**. Github
- Collaborated on the technical architecture design and analytical modeling for a Social Media User Migration study at the **Data Mining and Machine Learning Lab**, ensuring effective version control and code management using Git. **(Github code)**.
- Formulated a comprehensive product design framework for new software utilities, focusing on user-centric features and streamlined interfaces, by applying best practices in test automation and iterative prototyping to ensure high usability standards/

Software Engineer Intern: United Imaging Intelligence **Boston, Massachusetts| May 2023 – Aug 2023**

- Spearheaded the development of a T1 mapping Dicom Image dashboard leveraging **Vue.js** to expedite cardiac anomaly detection.
- Innovated a data processing and deep learning segmentation structured pipeline, utilizing **Numpy**, **Python and TensorFlow** to enhance MRI data handling efficiency by 10% and enable more precise imaging analysis.
- Pioneered microservice containerization using **Docker** & **Kubernetes**, optimizing MR post processing workflow operations by **40**%.
- Enhanced the accuracy of Cardiac health assessment accuracy by **15**% through implementation of advanced ECV visualization infrastructure, resulting in more accurate diagnoses and treatment planning for cardiac specification.
- Synthesized comprehensive technical documentation of T1 analysis and architectural proposals, showcasing project content management, strategic planning and agile development in compliance with user stories completion in software engineering.
- Instituted rigorous code quality and health checks as part of the continuous integration pipeline, utilizing static analysis tools and peer review processes to maintain high standards of code reliability and maintainability across all development stages.

Software Engineer: General Electric Healthcare **Bangalore, India | Sep 2020 – Aug 2022**

- Elevated cybersecurity measures at GE by architecting a role-based access control system; centralizes Authentication, Authorization and Identity Management microservices fusing **SaaS**, **oauth, Angular, Java, Maven, Golang, JWT, Helm, openid**.
- Unified MR and CT machine responsive design user interfaces in compliance with test driven development to enhance user experience with **Angular, Spring boot, RabbitMQ, Java, AWS Lambda** significantly reducing clinical operational cost by **40%.**
- Constructed an AI-driven Brain Segmentation infrastructure using U-Net covolution neural network enhancing diagnostic capabilities for Neuro MRI examinations. Utilizing **AWS EC2** and **S3** for cloud infrastructure.
- Formulated **Spark NLP** pipeline with classifiers for patient scan recommendations, increased operational efficiency by 10%.
- Built firmware vulnerability and security dashboard with **Grafana, Kibana, Logstash** and **ELTK stack**, and given production support which resulted in the 10% reduction in product delivery latency thereby enhancing security responsiveness (**DevOps**)
- Led the full stack integration of Patient Browser and Dicom Image Viewer on Edison hardware leveraging automated tests, **Angular**, **Python, Apache Kafka** & **Flask** to create a seamless and more efficient patient data visualization system.
- Graduate of cross functional **Edison Engineering and Leadership program,** recognized for exceptional performance in rotations.
- Recipient of **'Deliver with Focus and Vision'** awards acknowledging outstanding contributions to the Edison program.
- Awarded **'Best Research and Analysis'** and **'Best Innovation Solution'** for web applications using **Apache Flink** at Innovate 2021 in collaboration with 240 Edison engineers across 8 different countries from Asia, Europe and the USA also demonstrating exceptional communication skills. (Aug 2021)

Software Developer Intern: F-Logic Enterprise **Bangalore, India | Apr 2019 – Aug 2019**

- Architected an end-to-end 1-to-N video broadcasting application with CDN increasing product sales by **15**% in ed-tech community.
- Front end, backend , connection establishment and real-time streaming web services were build using web sockets & WebRTC.
- Implemented a CSR portal in compliance with tdd validation aiding in the dissemination of critical resources for flood relief efforts.

ACADEMIC PROJECTS

- Architected G-Select branch Predictor and LRUIPV cache replacement rules in **Gem5** simulator using **GCP, C++.** Github
- Engineered a structured Apache spark-based architecture for high-throughput entity extraction from biomedical research abstracts, achieving a 24% efficiency gain in processing time.
- Designed, deployed a Health Centre portal at NITC using **PHP, HTML, CSS and SQL**, replacing outdated diagnosis file systems with information technology application, resulting in a 20% improvement in processing efficiency.

EDUCATION

Master of Science in Computer Science **GPA:4/4**
Arizona State University Tempe Arizona
Advanced Studies*:* Cloud Computing*,* Artificial Intelligence , Algorithmic Foundations & Analytics, Cybersecurity Methodologies.

Bachelor of Technology in Computer Science and Engineering **GPA: 7.56/10**
National Institute of Technology Calicut Kerala, India.
Advanced Studies in: Object-Oriented programming, Operating Systems, Data Structures and Algorithms, Data Analysis

SKILLS

Tech Stack: TypeScript, Python, JavaScript, C, C++, Java, Go, HTML, CSS, node.js, bootstrap
Frameworks and OS: Angular, ReactJS, Vue, Flask, Django, Maven, Gradle, Spring boot, oauth, JVM, jquery, Windows, linux,Ubuntu ,unix.
Testing Tools and Run time Environments: Cucumber, Jasmine, Mockito, Cypress, CI/CD, integration Testing using selenium, Junit
Concepts: RESTful APIs, Debugging, Agile, Client-Server Protocol, API design, UX, UI, logging, automated testing, JSP, containerization, http
Tools, Version Control & Database: Postgres, Docker, AWS, google cloud, Jenkins, Git, GCP, MySQL, Android Studio, SQL, MongoDB, NoSQL, Apache Kafka, TCP, IP, Visual Studio, Oracle DB, RabbitMQ, Azure, K8s, Pandas, Bash, Shell, JSON, GPU, Pytorch , CLI, IDE