Anisa Shaik

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EDUCATION

Master's in Computer Science Aug 2024 – May 2026
University of Florida, Gainesville, Florida CGPA – **4.0/4.0**

Coursework*:* Advanced Data structures, Analysis of Algorithms, Introduction to Data Science, Math for Intelligent System, Natural Language Processing Applications, Artificial Intelligence and Machine Learning, Big Data Analytics.

SKILLS

Programming Languages: Python, R, C/C++, Java, JavaScript
AI/ML Technologies: TensorFlow, PyTorch, Scikit-learn, OpenCV, NLTK, Keras, Pandas, NumPy, SciPy
ML Techniques: Deep Learning, Computer Vision, Natural Language Processing, Reinforcement Learning
Database Management: SQL, PostgreSQL, DynamoDB, Redis
Data Processing & Visualization: Matplotlib, Seaborn, Tableau, Jupyter, Data Wrangling, Feature Engineering

EXPERIENCE

Fidelity National Information Services, Inc. (FIS), Chennai Tamil Nadu, India
Software Engineer Jun 2022 – Jul 2024

- Collaborated with **agile teams** to assist with **feature extraction, data preprocessing, and transformation workflows** for ML applications.
- Built automated **data validation pipelines** for RESTful APIs across distributed systems, improving data reliability and accelerated processing by **50%.**
- Developed custom **JavaScript scripts** to automate data quality checks and streamline **data integration workflows**.
- Diagnosed and resolved 25+ legacy issues using **data analysis**, reducing technical debt by **30%** and improving long-term system stability.
- Created dashboards and monitoring tools to track **data flow, latency, and anomaly detection**, enabling **real-time decision making**.
- Reduced pipeline latency by **30%** by identifying bottlenecks through metric analysis and performance optimization.
- Automated repetitive tasks and streamlined **data ingestion and transformation processes**, supporting analytics and reporting for financial data.
- Leveraged **infrastructure as code** to configure scalable test/data environments, reducing provisioning time from 2 days to 4 hours.
- Applied **statistical analysis** and collaborated cross-functionally to reduce system errors by **40%**, enhancing data-driven outcomes.

The Sparks Foundation
Data Science & Business Analytics Intern Sep 2021 – Oct 2021

- Built a hybrid ML pipeline integrating **LSTM-based time-series forecasting** with **NLP-driven sentiment analysis** to predict TCS stock trends.
- Trained and evaluated six ML algorithms; **Gradient Boosting model achieved highest accuracy of 85.52%**, outperforming others like Logistic Regression and AdaBoost.

PROJECTS

Aspect-Based Sentiment Analysis

- Leveraged advanced NLP methodologies to dissect and analyze customer reviews extracting granular sentiments
- Tuned machine learning models with feature engineering & dimensionality reduction for performance optimization.

Medical MRI Brain Scan Image Segmentation

- Implemented advanced computer vision techniques to segment six distinct brain layers from MRI scans, enabling precise neurological assessment and diagnostic capabilities
- Developed and optimized a U-Net architecture for automated segmentation, achieving significant improvement in boundary delineation compared to traditional methods
- Engineered a hybrid segmentation pipeline combining active contours, multi-threshold techniques, and deep learning models to enhance accuracy and reliability in clinical image analysis

Fatigue Detection System Using Computer Vision and Deep Learning

- Engineered a real-time drowsiness detection system using OpenCV and CNN architecture that processes camera feeds to identify driver fatigue with precision timing for blink duration thresholds.
- Implemented eye aspect ratio (EAR) algorithm to accurately track eye movements and classify alertness states based on predefined thresholds (0.3 EAR, 200-300ms blink duration).
- Developed an adaptive multi-level alert system that triggers audio notifications based on drowsiness severity, enhancing driver safety through immediate feedback mechanisms.