SHRUTI DEVLEKAR

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EDUCATION

State University of New York at Buffalo — ***Buffalo, NY***
Engineering Science (Data Science) MS — **Aug 2024 – Present**

Vivekanand Education Society's Institute of Technology — ***Mumbai, IN***
Bachelor of Engineering — **2020-2024**
Major in Artificial Intelligence and Data Science; Minors in Blockchain Technology
Cumulative GPA: 9.18/10.0
Courses: Data Structures & Algorithms, Data Analysis & Mining, Machine Learning, Deep Learning, RL, Advance AI

EXPERIENCE

Inventiff Consulting Services — **Jun 2023 – Dec 2023**
Data Science Intern

- Led the development of innovative solutions for data extraction and automated invoice processing tailored to company requirements using Large Language Model (LLM), LangChain, and Python for backend automation, improving processing efficiency by 40% and reducing manual errors significantly.
- Collaborated on a Data Quality Check project using Machine Learning and NLP to ensure data consistency, accuracy, and completeness. Developed a Data Validation Pipeline to detect inconsistencies and missing values, ensuring data integrity. Utilized Python, SQL, and Power BI for real-time reporting and enhanced decision-making.
- Analyzed project outcomes and presented insights to stakeholders, highlighting the impact of AI-driven processes on operational efficiency.

VESIT Renaissance Cell — **Jun 2022 – Aug 2022**
Research Intern

- Conducted time series anomaly detection on the Numenta Anomaly Benchmark Twitter dataset using PyCaret, leveraging advanced models such as Isolation Forest, XGBoost, One-Class SVM, and CatBoost for clustering and regression.
- Applied regression-based predictions and thresholding techniques to optimize model accuracy, enabling effective outlier detection and enhancing real-world applications in anomaly detection and time series analysis.

IJCA Publication : Anomaly Detection in Time Series using Unsupervised Machine Learning Approach

PROJECTS

IntelliBank: AI-based Dialogue System for Open Intent Recognition — **Aug 2023 – May 2024**

- Developed an AI-powered dialogue system designed to recognize and interpret diverse user intents in banking queries.
- Integrated Adaptive Decision Boundary (ADB) for dynamic decision boundary adjustments, enabling accurate identification of open intents outside known clusters, and enhanced the model to Adaptive Decision Boundary Learning via Expanding and Shrinking (ADBES) for improved intent differentiation.
- Combined ADBES with Multi-task Pre-training and Contrastive Learning using Nearest Neighbors (MTP-CLNN) to uncover new intent categories, resulting in a robust and adaptable dialogue system that evolves with user needs.

IJIRT Publication : Enhancing Dialogue Systems with Adaptive Decision Boundaries and Multi-task Learning for Open Intent Recognition

Water Quality Prediction — **Sep 2022 – Apr 2023**

- Developed a web application for predicting and classifying water quality, treatment options, and usage utilizing models including SVM/SVR, Improved Decision Trees, Random Forests and Deep Neural Networks (DNN).
- Overcame challenges associated with gathering and standardizing data from various water bodies across India to ensure comprehensive and reliable analysis.
- Conducted an extensive review of research literature to identify and implement the most effective modeling techniques, ensuring high accuracy and reliability in predictions.

Springer Publication : Predicting and classifying water quality, treatment, and usage: a comprehensive review

HomeoRemedy — **Mar 2023**

- Developed a dynamic web application for homeopathy using React.js for a responsive user interface and Flask for a robust backend, enabling users to receive medicine recommendations for common ailments.
- Integrated a discussion portal for healthcare professionals to facilitate collaboration and knowledge sharing, along with instant report generation for user convenience.
- Leveraged the Google Maps API to help users locate nearby pharmacies, enhancing accessibility and user experience.

ADDITIONAL

Technical Skills: Git/GitHub, Pandas, NumPy, Matplotlib, Plotly, Scikit-learn, TensorFlow, Keras, PyTorch, OpenCV, AWS (S3, EC2, Lambda, Kinesis), Docker, Apache Spark, Hadoop, NoSQL (MongoDB), PowerBI, MS Excel, Linux
Programming Languages: Python, Java, C/C++, R, MATLAB, HTML/CSS, JavaScript, SQL, Solidity
Certifications: Fundamentals of Deep Learning, Applications of AI for Anomaly Detection, and Applications of AI for Predictive Maintenance (NVIDIA DLI), LangChain for LLM Development (DeepLearning.AI)