LIKHIT JUTTADA

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EDUCATION

University at Buffalo, *Buffalo, NY* Aug 2023 – Jan 2025

Master of Science in Data Science *GPA: 3.44*

Coursework: Machine Learning, Deep Learning, Reinforcement Learning, Computer Vision, NLP, Time Series Analysis & Forecasting, Inferential Statistics, Database Design & Management, Statistical Modeling

Anurag Group of Institutions, *Hyderabad, India* Aug 2017 – Jul 2021

Bachelor of Technology in Computer Engineering *GPA: 3.73*

Coursework: Probability Theory & Stochastic Processes, Linear Algebra, Calculus, Data Mining, Digital Image Processing

EXPERIENCE

Data Scientist - Bioinformatics Research, *University at Buffalo, NY* Aug 2024 - Present

- Analyzed clinical data of breast cancer patients using statistical methods to uncover hidden patterns and investigate the role of eIF4B in metastatic tumors, advancing cancer progression research.
- Engineered ETL pipelines in Python to automate data preprocessing, reducing manual intervention by 10+ hours and allowing researchers to focus on critical insights.
- Designed and tuned machine learning models in an HPC environment using SVM, ensemble techniques, and regression analysis, achieving 90% accuracy in triple-negative tumor classification.
- Conducted hypothesis testing on demographic data to eliminate redundant features, reducing dataset size by 30% while enhancing model interpretability with decision boundary visualization.
- Presented research findings in team meetings, simplifying machine learning concepts and contributing to about 25% increase in research productivity.

Data Analyst, *Accenture, Hyderabad, India* Jul 2021 - Aug 2023

- Streamlined data cleaning and validation workflows using Microsoft Excel and Power Query Editor, ensuring the prompt delivery of 300+ business files without compliance issues.
- Optimized SQL queries for large-scale databases, reducing data retrieval time by 25% and enhancing reporting efficiency.
- Delivered detailed presentations on faulty business transformations, finding key issues and reducing the error rate by 20%.
- Designed and implemented interactive dashboards to visualize business data and KPIs, offering real-time insights that had a direct impact on the business decisions.
- Created data visualizations and reports in a non-technical format, enhancing clarity and reducing communication overhead between teams

PROJECTS

Multi Modal Visual Question Answering System

- Developed a Visual Question Answering (VQA) model that processes image-based questions, achieving a 75% accuracy in generating relevant responses.
- Fine-tuned a pre-trained VGG16 architecture to extract image features, integrating into an LSTM-based language model for improved natural language understanding.
- Implemented GloVe embeddings to represent tokens in an embedding space, enhancing language model performance by 20% through optimized feature representation.

Glaucoma Diagnosis using CNNs

- Developed a CNN-based classification model for glaucoma diagnosis, using deep learning to analyze medical images.
- Implemented a data augmentation pipeline to avoid overfitting and improve variability, boosting model accuracy by 15%.
- Improved training efficiency by utilizing TensorFlow's dataset utility for pre-processing and pre-fetching, improving training performance by 10% and achieving 80% model accuracy with a binary classification approach.

Stock Trading Using Reinforcement Learning

- Built a Stock Trading Agent using Q-learning, a reinforcement learning algorithm in a simulated trading environment.
- Conducted hyperparameter tuning (learning rate, discount factor) to enhance the performance of the trading agent.

TECHNICAL SKILLS

- Core: Python, Scikit-learn, NumPy, Pandas, Matplotlib, Keras, TensorFlow, XGBoost, Power BI, MATLAB, MySQL, MS SQL Server, PySpark, NoSQL, R Studio, MS Excel
- MLOps: Shell scripting, GitHub, Docker, Kubernetes, MLflow
- Others: AWS Sage Maker, Apache Spark, Databricks, AB Testing