TEJAS PINJALA

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EDUCATION

University of Texas - Dallas **January 2024 - May 2025**
Master's, Computer Science

University of Texas - Dallas **August 2020 - May 2024**
Bachelor's, Computer Science *GPA: 3.65*

- Advanced Algorithm Design and Analysis, Big Data Management and Analytics, Machine Learning, Database Systems, Computational Methods for Data Scientist, Computer Networks.

PROFESSIONAL EXPERIENCE

University of Texas - Dallas **Dallas, TX, USA**
Undergrad Research in Machine Learning *August 2023 - December 2023*

- Actively participated in groundbreaking research focused on developing advanced machine learning models for predictive analytics.
- Pre-processed and cleaned datasets comprising over 1 million data points, enhancing the reliability of model predictions.
- Achieved an average model accuracy of 92%, precision of 86%, recall of 85%, and F1 score of 87% across various projects.
- Collaborated in a team of 4 researchers, contributing to a 25% overall increase in project efficiency and output.

PROJECTS & OUTSIDE EXPERIENCE

NLP Text Classification

- Developed an advanced Natural Language Processing text classification pipeline using Apache Spark NLP and PySpark, achieving an accuracy of 86% in categorizing diverse text data.
- Developed a machine learning pipeline for efficient text processing and classification, resulting in a 70% reduction in processing time.
- Optimized a deep learning classifier (ClassifierDL Approach), successfully reducing classification errors by 20% over a period of 5 training epochs.
- Enhanced text classification accuracy by effectively utilizing sentence embeddings, leading to a 15% increase in recall rate.

Image Classification Using Convolutional Neural Network

- Developed a Convolutional Neural Network (CNN) in Python for the classification of dog breeds, leveraging libraries such as NumPy, Pandas, and TensorFlow/Keras.
- Engaged in comprehensive data preprocessing, including handling missing values and label encoding, to ensure the data's readiness for model training.
- Employed data augmentation techniques to improve the model's ability to generalize from the training data, enhancing its accuracy in classifying various dog breeds.
- Optimized the CNN model through iterative training, resulting in significant improvements with an accuracy of 95%.

Stock Market Analysis

- Developed and implemented various stock market investment strategies using Python, to analyze improvement in portfolio performance over a 30-year period.
- Conducted comprehensive financial analysis of the S&P 500 using yfinance and pandas, leading to the identification of key market trends and investment opportunities.
- Created advanced data visualizations with matplotlib and Plotly, enhancing the interpretability of complex financial data and supporting strategic decision-making.
- Performed historical data analysis of 30 years of stock market data, identifying patterns that informed successful investment decisions with a 25% higher success rate than traditional methods.

Multi-Threaded TCP/IP Chat Application

- Developed a network-based Java application, enabling efficient client-server communication over TCP/IP protocols.
- Implemented a multi-threaded server in Java capable of handling simultaneous client connections, enhancing application scalability and performance.
- Optimized server performance by handling each client connection in a separate thread, thus reducing server response time.
- Utilized Java's networking and concurrency APIs to create a responsive and interactive application environment.
- Documented and tested network communication protocols within the application, ensuring adherence to project specifications and requirements.

SKILLS

Skills: Data Science, Data Structures & Algorithms, Hadoop, Git, HTML/CSS, Java, Keras, MySQL, Pandas, React Native, SQL, Tensorflow, Python, Adobe Creative Suite, Agile, TCP/IP, MongoDB, Selenium, Apache Spark, Computer Vision, Computer Networking, C/C++, Adobe After Effects, Pytorch, Salesforce