Litesh Perumalla

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PROFESSIONAL SUMMARY

Master's student in Data Science at the University of North Texas with a strong foundation in computer science and machine learning. Skilled in data analysis, predictive modeling, and data visualization, with experience applying analytical techniques to real-world problems. Passionate about leveraging data-driven insights to optimize decision making.

TECHNICAL SKILLS

Data Engineering: ETL Pipelines, Big Query, Apache Spark, Hadoop/MapReduce, Airflow, Snowflake, Data Warehousing.
Deep Learning: Artificial Neural Networks (ANN), Convolutional Neural Networks (CNN), TensorFlow, PyTorch.
Data Analysis and Statistical Tools: Predictive Modeling, Statistical Analysis, Data Wrangling, SAS, Excel.
Big Data and Cloud Technologies: Amazon Web Services, Google Cloud Platform.
Visualization Tools: Tableau, Power BI, Looker Studio, Sage Maker.
Database Management: MySQL, PostgreSQL, Cassandra, MongoDB.
Programming Languages: Python, R, SQL, C#, JavaScript, TypeScript.
Certifications: Machine Learning Specialization- Coursera.

EMPLOYMENT EXPERIENCE

Discovery Park Library Services Academic Assistant | Denton, TX May – August 2019

◦ Provided comprehensive in-person, phone, and virtual assistance to more than **100** students and faculty per week, improving the ability to access and use library resources effectively.
◦ Collaborated with faculty to identify and connect to specialized resources, contributing to more effective teaching and impactful research projects.

PROJECT EXPERIENCE

Streamlining Healthcare Delays Nov 2024

◦ Conducted a comparative analysis to determine the most efficient approach for handling large-scale healthcare data, improving system performance, and decision-making.
◦ Optimized patient scheduling and insurance processing by resolving bottlenecks through data analysis.
◦ Delivered insights that reduced appointment delays by **15%** using Python and Google Cloud tools.
◦ **Tools used:** Open Refine, Python, Hadoop, Hive, Spark, Google cloud, Big Query, Apache Beam.

Skin Cancer Detection Using a Convolutional Neural Network Nov 2024

◦ Engineered and implemented a Convolutional Neural Network (CNN) model on a dataset of over **10,000** medical images, achieving early lesion detection with an **85%** identification accuracy
◦ Optimized CNN architecture by fine-tuning hyperparameters and implementing data augmentation techniques, enhancing model performance for early lesion detection.
◦ **Tools used:** Python, Matplotlib, Sci-kit learn, NumPy, pandas, TensorFlow, CNN.

Fraud Detection using Machine Learning. Oct 2024

◦ Built a machine learning algorithm to detect fraudulent transactions from a dataset of more than **1 million** transactions.
◦ Engineered features and trained multiple models, selecting the most accurate model based on performance metrics.
◦ Developed a web application to integrate the fraud detection model for real-time prediction and accessibility.
◦ Optimized model through **hyper parameter tuning**, achieving high accuracy and reliability in fraud detection.
◦ **Tools used:** Python, Sci-kit learn, Streamlit, Machine Learning Libraries.

Predicting Liver Disorder Using Machine Learning. May 2024

◦ Developed and trained an Artificial Neural Network (ANN) model to predict liver disorders, achieving over **90%** prediction accuracy using a comprehensive medical dataset.
◦ Enhanced model performance by applying feature selection and normalization techniques, improving the ANN's ability to accurately predict liver disorders.
◦ **Tools used: Python,** Matplotlib, Sci-kit learn, NumPy, pandas, TensorFlow, MLP Classifier, ANN.

EDUCATION

University of North Texas | Denton, TX Expected: Dec 2025
Master of Science – Data Science GPA: 4.00
Coursework: *Data Visualization, Data Analytics, Data Mining, Machine Learning, Data Modeling, Data Engineering.*