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.

EDUCATION

University of North Texas | Denton, TX

Master of Science - Data Science

Expected: Dec 2025

GPA: 4.00

Coursework: Data Visualization, Data Analytics, Data Mining, Machine Learning, Data Modeling, Data Engineering.

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.