DHRUV SOOD

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EDUCATION

NEW YORK UNIVERSITY, New York, United States ***May 2025***
Master of Science - Information Systems

VELLORE INSTITUTE OF TECHNOLOGY, Vellore, India ***June 2023***
Bachelor of Technology - Information Technology
Coursework: Data Mining, Database Management Systems, Artificial Intelligence, Tech Product Management, Data Science

TECHNICAL SKILLS

Programming – Python (Numpy, Pandas, SciPy, Seaborn, Matplotlib, TensorFlow), C++, Flutter, SQL, ETL Processes
Analytics – Classification & Regression (SVM, kNN, Gaussian, Random Forest), Visualization, Clustering (K-means & Hierarchical)
Tools – VS Code**,** Git, Jira, Tableau, Power BI, Microsoft Office Suite (Access, Excel, Word, PowerPoint), DataRobot, Pipeline Pilot

PROFESSIONAL EXPERIENCE

DASSAULT SYSTÈMES ***2024***
Data Science Intern
- Achieved a 15% reduction in downtime and maintenance costs through the implementation of a predictive maintenance model, increasing operational efficiency in automotive welding systems.
- Constructed an XGBoost model with 99% accuracy, leveraging class rebalancing techniques and A/B testing to identify the best-performing model
- Utilized automated ETL pipelines to preprocess large-scale sensor data, ensuring scalability and precision for predictive maintenance models.
- Applied statistical analysis using Pipeline Pilot to identify key patterns and trends in sensor data, enhancing predictive model accuracy by 20%

ERNST & YOUNG ***2023***
Data Science Intern
- Reduced safety risks by ensuring timely and accurate detection of dashboard warnings, reducing missed alerts by 30%, thereby boosting vehicle safety
- Devised an ML model leveraging the transformer-based YOLOv7 algorithm to identify warning signal lights
- Enhanced model accuracy and robustness for the image detection model by applying the bagging technique and using different backbone architectures, achieving 98% accuracy in object identification
- Collaborated with cross-functional teams to integrate the ML model into a mobile app, resulting in a 30% improvement in real-time warning signal detection accuracy

ACADEMIC PROJECT

Predicting Trends in Ethical Consumerism ***2024***
- Leveraged NLP techniques and Large Language Models (LLMs) to analyze sentiment in Reddit discussions, utilizing APIs and advanced sentiment analysis tools (VADER, TextBlob) to map stock trends
- Built a Python pipeline on NYU HPC to process sentiment data and align it with stock prices via yfinance API
- Streamlined data collection by managing API rate limits and refining filtering techniques for sentiment-driven stock trends

Cardiovascular Disease Analysis Using Machine Learning ***2024***
- Created Tableau dashboards to gain insights into 3 high-risk factors contributing to cardiovascular disease, resulting in a 30% increase in clarity regarding the leading cause of the disease
- Analyzed the dataset of about 500,000 records and assisted the data science team with data validation
- Performed feature engineering and exploratory data analysis using DataRobot, improving data comprehensibility by 25%
- Conducted research and delivered data-driven critical insights to diverse stakeholders involved in decision-making

Deepfake Detection Using Machine Learning ***2022***
- Developed an ensemble model in Python leveraging Xception and Inception-ResNet-v2 models to identify deepfake media
- Delivered 98.6% accuracy of the model by implementing multi-scale training and optimizing the hyperparameters of the model
- Constructed a custom dataset with over 20,000 photos and 1,000 videos, annotated using Roboflow, ensuring model robustness and effectiveness in distinguishing between real and manipulated media

ADDITIONAL COURSES AND CERTIFICATIONS

- Product Management Essentials – *University of Maryland*
- Cloud Computing Foundation – *Gold level Certificate by NASSCOM*