Udyan Sachdev

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I am a dedicated data scientist with a proven track record of delivering impactful solutions. Currently pursuing a Master's in Interdisciplinary Data Science at Duke University. I am committed to deepening my expertise and integrating theoretical knowledge with practical applications to drive innovation.

EDUCATION

Duke University, Durham, NC   *August 2023 - May 2025*
Master in Interdisciplinary Data Science
Courses Overview: Computer Engineering Machine Learning and Deep Neural Nets, Introduction to Natural Language Processing, Data Engineering Tools, Machine Learning, Capstone Project – Showcasing conversation-driven insights using LLMs.

The Australian National University, Australia   *August 2019 - May 2021*
Bachelor of Engineering with Honours - Mechatronic Systems

Vellore Institute of Technology, India   August *2017 - May 2019*
Bachelor of Electronics and Communication Engineering

EXPERIENCE

Hewlett Packard Enterprise (HPE), Spring, TX   *June 2024 – December 2024*
Data Scientist Intern
Worked on E-Commerce Data:
1. Analyzed product configuration trends and deployed data-driven insights, leading to a 10% reduction in order processing time.
2. Developed a hybrid recommendation system for optimal product setups, increasing cross-sell conversions by 15% and reducing customer churn by 8%.
3. Predicted the success of order configurations, improving inventory forecasting accuracy by 20%.
Business Use Cases Impacted: Inventory Management, Dynamic Pricing, Personalized Customer Experience, Demand Revenue Forecasting

Accenture, India   *August 2021 – July 2023*
Data Science Consultant
Data Science Analyst
1. Developed an NLP-driven solution for analyzing and comparing company yearly reports, reducing manual review time by 40% and increasing insight extraction accuracy by 25%.
2. Predicted solar power generation from power plants across India, improving forecasting models by 18%, leading to optimized energy distribution and cost savings.
3. Built a Hybrid Recommendation System for a Data Marketplace, increasing website traffic by 30% and user engagement by 25%.
4. Implemented Computer Vision models to track progress and estimate coal excavation, improving operational efficiency by 12%.
5. Recognized under the Techie Award for expertise in AI/ML tools and business impact.

Technology Healthcare Bigdata   *December 2020 - February 2021*
Data Scientist Intern
Developed a use case for an insurance company, achieving an **F1-score of 0.92** in patient risk categorization.

Rezo.AI   *November 2019 - January 2020*
Data Scientist Intern - Speech Analytics
Explored Automatic Speech Recognition using ML algorithms and achieved an **accuracy of over 85%** for Indian Hindi transcription

ACADEMIC PROJECTS
1. Integrated Retrieval-Augmented Generation (RAG) with CLIP, improving text-image retrieval accuracy by 18% using FAISS and Pinecone.
2. Built a CNN-based food classification model, achieving 85% accuracy and deployed a Flask API with TensorFlow Lite for real-time tracking.
3. Developed a Markov chain-based text generator, optimizing n-gram selection to improve syntactic coherence by 20%.
4. Created a Flask web app for stock trend forecasting using LSTM models, Azure Databricks, and Dockerized microservices, improving prediction accuracy by 12%.

SKILLS & INTERESTS

Category	Skills/Tools
Coding Languages	Python, R, R Shiny, SQL, Git, MATLAB, Microsoft Office Suite Tools
Libraries & Frameworks	Pandas, NumPy, Scikit-learn, Caret, dplyr, Keras, PyTorch, TensorFlow, Data Visualization, Machine Learning, Deep Learning, Natural Language Processing
Specialized Data Analysis	Time Series Analysis, Hypothesis Testing, Experimental Design, Statistical Modeling, A/B Testing, Data Mining, Google BigQuery, Data Analytics, Statistical Data, Predictive Modeling
Big Data Technologies	Hadoop, Apache Spark, Hive, HDFS, MapReduce
Cloud Platforms	AWS (EC2, S3, Lambda), Microsoft Azure (Azure ML, Azure Data Lake)
Data Engineering	ETL (Extract, Transform, Load), Data Warehousing, Data Pipelines, Data Ingestion, Airflow
Advanced Data Visualization	Streamlit, Tableau, Power BI, Plotly, Seaborn, Matplotlib, Dash
Machine Learning & AI	Supervised/Unsupervised Learning, Reinforcement Learning, Neural Networks, Model Optimization
Model Deployment & MLOps	MLOps, DevOps, Docker, Flask, FastAPI, Kubernetes, Jenkins, CI/CD Pipelines, Model Versioning
Software Development	Agile Methodologies, Software Lifecycle Management (SDLC), Version Control, Code Reviews, CI/CD
Advanced Statistical Analysis	Regression Analysis, Multivariate Analysis, Monte Carlo Simulations, Bayesian Inference, Hypothesis Testing
Soft Skills	Critical Thinking, Analytical Reasoning, Research & Investigative Skills, Cross-functional Team Collaboration