Sarthak Vajpayee

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EDUCATION

The University of Texas at Dallas, Texas   05/2024
Master of Science, Business Analytics (Jindal School of Management)   **GPA 3.80**

Courses:	Applied Machine Learning, Advance Statistics, Deep Learning Algorithms, Predictive Analytics, Prescriptive Analytics, Database Foundations.
Academic awards:	**Dean's Excellence Scholarship** (*Jindal School of Management*)

JSS Academy of Technical Education, Noida, India   06/2018
Bachelor of Technology, Electronics & Communication Engineering   **GPA 3.04**

SKILLS

Certifications:	**Google Cloud:** Advanced machine learning on Google Cloud specialization
	Stanford University: Machine learning
Programming:	Python, R, MySQL, MongoDB
Libraries:	Scikit-Learn, Spacy, NLTK, Tensorflow, Keras, PySpark, PyTorch, XGBoost
Software:	Git, Docker, OpenCV, AWS, Azure, Google Cloud Platform
Personal Skills:	Time management, empathy, multi-cultural fluency, critical thinking, resilience.

PROFESSIONAL EXPERIENCE

AppSteer – Frisco, Texas, USA   05/2023 - Present
Machine Learning Research Intern

- Pioneered **prompt engineering** for LLMs, amplifying **LLM** capabilities using Langchain, and Huggingface.
- Achieved a **rapid deployment** milestone, crafting and implementing a fully functional API within an impressive six-week timeframe, markedly enhancing AppSteer's efficiency and productivity.
- Utilized AWS and Azure to scale solutions, reducing app development timelines from **a week to minutes**.

Ernst & Young Global Limited – Bengaluru, India   12/2021 - 07/2022
Senior Data Scientist

- Achieved over **90% accuracy** and under **15% bias** with a predictive model for the 3rd largest FMCG company, outpacing past demand planning methods in the Nordics Market.
- Delivered Gen-2 version (70% Volume and SKU coverage) for the Norwegian market with over **92% accuracy** within 15 days, benchmarking among European, South-East Asian, and South American markets.
- Analyzed **sporadic time-series data** to extract demand insights using **EDA, regression, and variation analysis**, including sales history, trends, events, promotions, volume, and market impact.

Applied Roots – Hyderabad, India   09/2019 - 11/2021
Machine Learning Engineer

- Created and managed six ML/DL projects on Applied Roots, mentored over **8000 students**, and graded their Python assignments on the e-learning platform.
- Contributed to **YoY revenue by 100%** through NLP techniques like Word-to-Vector, Code-to-Vector, Pre-trained Language Models, and LSTM for developing a **plagiarism checker** on the e-learning platform.

PROJECT EXPERIENCE

- **Research Project**: Spearheaded the development and optimization of **deep-learning** models, such as **RESNET-50**, achieving exceptional diagnostic accuracy with scores of 0.96 AUC and 92.78% accuracy, elevating the COVID-19 diagnostic tool to the standards of **RT-PCR testing**.
- **Kaggle**: Mercari Price Suggestion Challenge, scored in the *Top 6% using only linear models.*
- **Kaggle**: Google Q&A Labeling Challenge, *Top 4.4% using Transfer Learning Ensembles*.