Aman Parasher

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Summary

AI/ML Engineer with strong experience in designing and deploying machine learning models, building scalable pipelines, and integrating models into production using Python-based frameworks. Skilled in Scikit-learn, TensorFlow, and PyTorch with hands-on work in EDA, feature engineering, and model optimization. Familiar with REST APIs, Docker, Git, and cloud tools like AWS. Passionate about applying responsible AI techniques and delivering high-impact, real-world AI solutions in agile environments.

Education

Bachelor of Technology in Artificial Intelligence (AI)　　　　　　　　**Sep. 2021 – May. 2025**
CINTEL (Department of Computational Intelligence), SRM University KTR, Chennai, India　　*CGPA 8.2/10*

Technical Skills

Languages & Libraries: Python, SQL, Scikit-learn, Pandas, NumPy, TensorFlow, PyTorch, OpenCV, Regex
ML & AI Techniques: Supervised/Unsupervised Learning, Classification, Regression, Clustering, CNNs, NLP Basics, Model Evaluation, Hyperparameter Tuning, Explainability (SHAP/LIME)
Data Engineering & MLOps: Feature Engineering, EDA, Pipeline Automation, Apache Airflow, Streamlit, Flask, REST APIs, Docker, Git, GitHub
Cloud & Tools: AWS (S3, Glue, Redshift), Snowflake, Jupyter Notebooks, DVC (basic), Hugging Face Transformers
Visualization Tools: Power BI, Tableau, Seaborn, Matplotlib

Experience

International Research Intern　　　　　　　　　　　　　　　　　　　**Aug 2024 – March 2025**
National Chung Cheng University, Taiwan (Taiwan India Joint Research Centre on AI)　　　*Chiayi, Taiwan*

- Engineered a real-time vehicle turn signal violation detection system using computer vision and ML techniques.
- Applied YOLO-based models for fast and accurate object detection on video frames.
- Integrated SegNet and CNN-LSTM architectures for precise light masking and temporal signal analysis, achieving an F1-score of 0.88.
- Developed a full pipeline to analyze 1,000+ vehicle videos, generating detailed violation reports with labeled images and timestamps to enhance road safety monitoring.

Projects

Document Theme QA Chatbot | *OpenAI GPT-4, LangChain, OCR, FAISS, Streamlit, FastAPI*

- Built a chatbot to query 75+ PDFs/scans with sentence-level citations using FAISS vector search.
- Extracted text (incl. OCR) and enabled theme-based summarization across 1000+ paragraphs via LangChain.
- Achieved 85% relevance in multi-doc answers during internal testing across 30+ queries.
- Deployed a user-friendly web app with Streamlit and FastAPI, processing queries in <2.5 sec on average.

Data Pipeline for Customer Churn Analysis | *AWS services (S3, Glue, Redshift), Apache Airflow, Power BI*

- Built an end-to-end churn prediction system combining ETL pipelines and ML model deployment.
- Used AWS Glue and Redshift for data ingestion and transformation; automated workflows via Airflow.
- Trained churn model using Scikit-learn; deployed with Flask API and containerized using Docker.
- Delivered business insights through Power BI dashboards connected to processed Redshift data.

Virtual Internships/Course Certifications

AWS Academy: Machine Learning Foundations
Forage Virtual Internship: TATA Data Visualisation: Empowering Business with Effective Insights
Forage Virtual Internship: KPMG Data Analytics Consulting Virtual Internship
One Fourth Labs: PadhAI- Foundations of Data Science
Coursera: Google course on Foundations: Data, Data Everywhere

Research Paper

Risk Assessment of high growth AI stocks using Time Series Analysis, 25th Annual Convention of Strategic Management Forum at at Indian Institute of Management (IIM), Tiruchirappalli (Accepted).