Sharad Kumar Tiwari

Machine Learning Engineer

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Professional Summary

Machine Learning Engineer with 4 years of experience delivering production-grade ML and GenAI solutions across aviation, finance, and healthcare. Spearheaded a GenAI intent classifier that cut manual transcript review by 70% and built an MLOps pipeline reducing deployment time by 50%. Passionate about driving measurable business impact through scalable automation, real-time NLP services, and cloud-native architectures.

Professional Experience

Jet2 Travel Technologies Pvt Ltd (Jet2.com & Jet2Holidays)   Pune, Maharashtra

Machine Learning Engineer   *July 2024 – Present*

- Developed a GenAI customer intent classifier (AWS Transcribe, Mistral fine-tuning, Snowflake Cortex AI) that reduced manual transcript review effort by 70%.
- Forecasted aircraft revenue and bookings using XGBoost model (with r2_score 0.87 on validation data), optimizing route planning and cutting overbooking incidents by 30%.
- Implemented Azure DevOps CI/CD pipelines with AWS ECR and Terraform to automate infrastructure provisioning and project deployments, reducing deployment time by 50%.
- Built an end-to-end MLOps pipeline (AWS Glue, SageMaker, Lambda, Step Functions) and a hybrid feature framework (Snowflake, DBT) to automate model training and input standardization; piloted for 10+ ML projects.
- Automated & cost effective document lookup with a "PDF Finder" pipeline, reducing work order processing time from 5–10 hours to 5 minutes.
- Enforced data science best practices (checklists, code reviews, performance tuning & Azure DevOps artifact registry with Snyk Advisor security scans), reducing production bugs, accelerating model inference and vulnerability-free deployments.

Codiant - A Yash Technologies Company   Indore, Madhya Pradesh

Machine Learning Engineer   *Jan 2022 – July 2024*

- Collaborated with cross functional teams & Deployed a RAG-based Q&A pipeline (Azure OpenAI GPT-3.5, Ada embeddings, FAISS) that cut document lookup time from over 5 days to minutes.
- Built an end-to-end document extraction system for aircraft maintenance ARC (EASA/FAA) documents using Azure Document Intelligence and a custom YOLO + OCR + Image Classification pipeline, achieving over 80% accuracy and enabling validation via a stakeholder-facing Streamlit app.
- Designed a SpaCy NER + Elasticsearch + ML Classification pipeline to extract key details from aircraft maintenance records, achieving 93% field-level accuracy and automating record tagging (with f1_score 0.89) and labelling (with f1_score 0.93).
- Engineered a resume parser (SpaCy NER & REL) deployed on AWS Lambda, auto-processing 1,000+ resumes/month across mid-sized firms and eliminating manual review and scoring effort for recruiters.
- Developed a multimodal recommendation system using transformer-based embeddings (text, video, audio) for scalable cosine-similarity retrieval.
- Deployed RASA-based chatbot platforms in healthcare and insurance domains, reducing customer response times by 60%.

Pojo Software Pvt Ltd   Chennai, Tamil Nadu

Data Analyst   *Sep 2021 – Jan 2022*

- Designed and backtested high-frequency trading algorithms using statistical analysis and mathematical modeling, optimizing performance and reducing volatility.
- Conducted data-driven market analysis to identify trading opportunities, driving improved portfolio returns.

Technical Skills

Core ML/AI: Regression, Classification, Time Series Forecasting, Transformers, CNN, RNN, LSTM, AutoML, RASA

GenAI/NLP/Vision: GPT-3.5/4, Retrieval-Augmented Generation, Prompt Engineering, HuggingFace, LangChain, spaCy, NER, REL, OCR, Object Detection, YOLO, Image Similarity
MLOps: SageMaker, MLflow, DVC, Docker, Azure Machine Learning, Azure DevOps, Terraform, CI/CD, Model Monitoring
Data Engineering: Snowflake, DBT, Azure Glue, AWS S3, PostgreSQL, Databricks, Pandas, PySpark
Frameworks: PyTorch, TensorFlow, Scikit-Learn, XGBoost, LightGBM, FAISS, FastAPI, Streamlit, Flask
Tools: Git, Visual Studio Code, Jupyter, Postman, Tableau, Dataiku DSS

Education & Certifications

Institute Of Engineering, Jiwaji University, Gwalior   **2017 - 2021**
B.Tech in Computer Science & Engineering   *8.2/10 CGPA*
Certifications:

  AWS Cloud & Technical Essentials (AWS)

  AWS Associate Machine Learning Engineer (AWS)

  Stanford Machine Learning Specialization (Coursera)

  DeepLearning.ai Specialization (Coursera)

  DP-100: Azure Data Scientist Associate (Microsoft)

  NLP with Azure (Microsoft)

Achievements

Diamond Spot Award by Jet2.com & Jet2Holidays   2025

Gold Medal for Academic Excellence by Jiwaji University   2022