TANISH JINDAL

Applied AI | Machine Learning | Data Analytics

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Profile

Applied AI and machine learning practitioner with an MSc in Artificial Intelligence (Merit) and experience delivering client-facing analytics, NLP prototypes and practical ML systems. Built candidate-support tools using retrieval-augmented generation, classification and dashboards, alongside business forecasting and real-time computer vision projects. Combines Python, SQL, model evaluation and stakeholder communication to translate business problems into technical solutions across AI engineering, data analysis and software development.

Technical skills

Programming & software: Python, SQL, C++, Java, Git/GitHub, Linux, REST APIs, FastAPI, pytest

Machine learning: scikit-learn, XGBoost, PyTorch, TensorFlow, feature engineering, model evaluation, SHAP, MLflow

NLP & generative AI: LangChain, retrieval-augmented generation (RAG), FAISS, SBERT, TF-IDF, OpenAI API

Computer vision: YOLOv8, OpenCV, convolutional neural networks, object detection, real-time inference

Data, BI & deployment: pandas, NumPy, Power BI, Streamlit, Plotly, data pipelines, Docker

Key achievements

- **Built a real-time road-defect detection prototype** running at 28 FPS on an RTX 4060, with audio feedback and 0.669 mAP@0.5.
- **Developed candidate support analytics** that classified approximately 85 of 100 labelled enquiries and saved an estimated 6-10 staff hours per month.
- **Reduced stock-review time from 6 hours to 90 minutes** through demand-forecasting and decision-support tools during freelance work with a trading business.

Work experience

Planily | Student Consultant & Team Lead, AI Strategy June 2026

University of Manchester Micro Internships (Graduates) / Practera | Manchester, UK (remote)

- Led a client-facing student consulting team, coordinating AI strategy, product research and reporting workstreams and incorporating feedback from the startup client.
- Designed a five-layer AI routing recommendation combining rules, retrieval, smaller models, LLMs and human review for school emails, PDFs and WhatsApp task capture.
- Modelled AI request volumes for 50-1,000 families, compared API and self-hosted options and helped produce a cost- and risk-aware three-year roadmap.

Aspire2PLAB | Artificial Intelligence Intern Jul 2025 - Jul 2026

Blackpool, UK

- Built a Python/LangChain candidate-support RAG prototype with FAISS and OpenAI API, indexing 100-150 training resources and FAQs.
- Trained a scikit-learn text classifier for five or more enquiry categories, correctly labelling approximately 85 of 100 validation queries; analysed 120-150 feedback records.
- Created Streamlit/Power BI and SQL dashboards for enquiry patterns and course demand; refined reports with tutor feedback, saving an estimated 6-10 staff hours monthly.

Heritage Insights Limited | Artificial Intelligence Intern Apr 2025 - Jul 2025

Blackpool, UK

- Combined 1,000-1,200 property records in a Python, pandas and SQL pipeline to support pricing benchmarks and local market comparison reports.
- Developed a Random Forest property-price estimation prototype (estimated R^2 of 0.72-0.78) using 10-12 engineered commercial and location features.
- Automated repeat reporting with Python, SQL and Power BI/Plotly, saving an estimated 8-12 analyst hours monthly; presented investment insights to stakeholders.

Family Business Portfolio | Freelance AI/ML Consultant Apr 2022 - Jan 2023

Trading, jewellery retail and rice manufacturing | Kurukshetra, India

- Independently developed 12 ML and automation use cases for three family-owned businesses, spanning demand forecasting, recommendations, document processing and computer vision.
- For Gupta Trading Company, cut stock review from 6 hours to 90 minutes and invoice entry from 5 minutes to under 90 seconds per invoice through automation and decision-support tools.
- For Aggarwal Jewellers, reduced product search from 12 minutes to under 3; for Heera Rice Mill, built quality inspection and maintenance-risk tools for 12 machines.

Technical projects

Fraud Detection API for Financial Transactions May 2026

- Built an XGBoost fraud scoring API using Python, FastAPI and Docker on a 284,807-transaction benchmark (0.173% fraud), achieving 0.856 PR-AUC and 0.976 ROC-AUC.
- Provided four REST endpoints, SHAP explanations, MLflow tracking and five passing pytest checks for request validation and inference.

Virtual White Stick - Real-Time Road Anomaly Detection (MSc) May 2025 - Sep 2025

- Modified YOLOv8m with edge-aware preprocessing and attention using 16,476 road images, improving training mAP@0.5 from 0.655 to 0.673.
- Delivered image, video and batch inference at 28 FPS on an RTX 4060, with 0.669 evaluated mAP@0.5 and audio/visual defect feedback.

Explainable and Fair Credit Risk Scoring Apr 2026

- Compared four classification model families and selected a no-loan-grade pipeline to reduce the risk of feature leakage.
- Implemented probability calibration, SHAP explanations, segment-level fairness analysis and a Streamlit decision-support dashboard.

GARCH Volatility Forecasting on Stock Returns Jul 2026

- Modelled six years of AAPL returns, corrected a noisy volatility evaluation method and found GARCH(1,1) improved on a rolling baseline by about 13% MSE and 20% QLIKE.

Education and qualifications

University of Manchester | MSc Artificial Intelligence (Merit) Sep 2024 - Dec 2025

Chitkara University | BEng Computer Science and Engineering Oct 2020 - Aug 2024

CGPA: 9.62/10

Selected professional training

Machine Learning Specialization - University of Washington / Coursera (2023); **Python for Data Science, AI & Development** - IBM / Coursera (2024).

Languages

English (fluent) | **Hindi** (native) | **Japanese** (intermediate; JLPT N5 passed)