

Manoj Sharma

Machine Learning Engineer — AI Systems Developer

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GitHub — LinkedIn

Education

Gurukul Kangri Vishwavidyalaya (FET), Haridwar
B.Tech in Computer Science and Engineering

Aug 2023 – Apr 2027
CGPA: 7.8/10

Technical Skills

Programming: Python, SQL, JavaScript

Machine Learning: PyTorch, TensorFlow, XGBoost, Scikit-learn, CNNs, LSTMs, NLP, Feature Engineering, Regularization

Modeling & Evaluation: Classification, Cross-Validation, Hyperparameter Tuning, GridSearchCV, F1-score, ROC-AUC, Precision, Recall

ML Systems: FastAPI, REST APIs, Model Serving, Model Serialization, MLflow, Docker, CI/CD, Real-Time Inference

Data Tools: Pandas, NumPy, Excel (Advanced), Data Cleaning, EDA

Cloud & Tools: Git, AWS (Fundamentals), OCI, IBM Cloud

Experience

Data Analyst Intern — Alfido Tech (Remote)

Nov 2025 – Jan 2026

- Built predictive retention models using Python and SQL, improving churn prediction accuracy by **22%**.
- Applied feature engineering and cohort-based modeling to improve generalization performance.
- Automated analytics pipelines reducing processing time by **90%**.

Python Developer Intern — Infotact Solutions

May 2025 – Aug 2025

- Developed scalable data preprocessing pipelines and REST APIs using Python and Flask.
- Built real-time monitoring systems handling 200+ product streams.
- Implemented validation frameworks improving dataset reliability by **35%**.

AI & Machine Learning Projects

VetNet AI — Hybrid Diagnostic ML System

Live

PyTorch · XGBoost · FastAPI · Docker · IoT

- Architected a two-stage hybrid ML pipeline trained on **15K+ labeled clinical records**, achieving **95.47%** validation accuracy across 24 species.
- Conducted EDA, data preprocessing, and feature selection; performed hyperparameter tuning using cross-validation and evaluated models using F1-score and ROC-AUC.
- Reduced model memory footprint by **60%** using optimized serialization and lazy loading for production deployment.
- Deployed real-time FastAPI inference API integrating IoT telemetry (heart rate, temperature, activity).
- Tracked experiments and model versions using MLflow to ensure reproducibility and systematic model comparison.

OpenWork Agent — AI-Powered Backend Code Generator (NPM Package)

Live

Node.js · CLI · Docker · CI/CD · Multi-Framework Support

- Developed an open-source CLI tool that generates production-ready backend architectures across multiple languages and frameworks.
- Implemented automated Docker configuration, CI/CD pipelines (GitHub Actions), authentication, validation, and security best practices.
- Designed extensible template system supporting Node.js, Python (FastAPI, Django), Java (Spring Boot), Go, and more.
- Reduced backend setup time by **70%**, enabling rapid AI/ML API deployment.

AI-Powered MCQ Generator

Live

NLP · TF-IDF · POS Tagging · Named Entity Recognition

- Built NLP pipeline for automated question generation from long-form documents (100+ pages).
- Improved semantic relevance and consistency by **25%**.
- Optimized text processing pipeline for scalable document ingestion.

Achievements

- Selected Participant — Amazon ML Model Development Challenge
- Solved 1000+ DSA problems (LeetCode, CodeChef)
- Certifications: Oracle AI Vector Search, OCI AI Foundations, IBM Cloud Fundamentals