

Jitendra Kumar

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Skills

Programming & Core: Java, Python, DSA, OOPs, OS, DBMS, Probability & Statistics, Linear Algebra

AI/ML: Ensemble (XGBoost, LightGBM, RF), Deep Learning (CNN, LSTM, Transformer), RAG Systems, LangChain

Frameworks & Libraries: PyTorch, FastAPI, OpenCV, Docker, GitHub Actions, Prometheus, Grafana, AWS, Selenium

DevOps & MLOps: CI/CD, MLflow, DVC, Kubernetes, Postman, Minikube, AWS(EC2, S3, Lambda)

Experience

Jetking Swargate

Remote

Machine Learning Intern

Apr 2025 – Sep 2025

- Developed a document intelligence pipeline with LangChain and DeepSeek, reaching 92% retrieval accuracy.
- Optimized **LSTM-XGBoost models** using **MLflow** and **Docker**, cutting training time by **40%**.

Outlier (Scale AI)

Remote

AI Model Evaluation Associate

Nov 2024 – Feb 2025

- Participated in large-scale LLM training and evaluation initiatives (Laurelin Sun, Blue Wizard).
- Enhanced model reasoning and factual accuracy through **iterative** feedback cycles and cross-functional collaboration.

Projects

RAG-Powered Conversational AI with Vector Embeddings & Vector Database ([GitHub](#))

Oct 2025

- Devised a Formula 1 chatbot using **LangChain.js**, **Next.js**, and **Data Stacks** with live web-scraped data.
- Generated **vector embeddings** from **10+** data sources stored in a serverless vector database for fast search.
- Implemented a responsive chat UI with **Vercel AI SDK** and secure API key management for real-time answers.

Intelligent QA Automation Framework for Fintech Systems ([GitHub](#))

Jun 2025

- Built a distributed QA automation framework using Selenium with **95% UI/API** coverage.
- Added **MCP**-based orchestration and **PyTest** unit tests, cutting manual QA effort by **60%**.

Vehicle Insurance Data End-to-End MLOps Implementation ([GitHub](#))

Feb 2025

- Developed an **end-to-end ML pipeline** for vehicle insurance prediction with data ingestion to deployment.
- Orchestrated **MongoDB Atlas**, **Docker**, and **GitHub Actions** for modular, automated **CI/CD** workflow.
- Launched on **AWS EC2** with FastAPI for RESTful inference and **S3** for model storage.

Research & Publications

TPIN++: A Three-Stage Transfer Learning Framework for Physics-Informed Solar Disaggregation

Ongoing

- TPIN++: Physics-informed Transformer disaggregating monthly to hourly solar data via domain-adaptive calibration.
- MSIN-V7: Multi-scale LSTM-Transformer ensemble using TPIN++ outputs for stable Delhi load forecasting.

Achievements

- Secured Global **Rank 354th** - GeeksforGeeks Institutional Contest (among 40k+ participants)
- Advanced to **Top 30 teams** (out of 600+) in Smart India Hackathon.
- **Solved** 400+ problems across [CodeForces](#)(1365), [LeetCode](#), [CodingNinjas](#), and [GeeksforGeeks](#).
- Achieved **3rd Rank** in CODE OFF DUTY Hackathon 2024 by developing an AI-powered defect detection system.

Certifications

- Machine Learning Specialization (Stanford University)| [DeepLearning.ai](#) **2025**
- Machine Learning | [IIT Kharagpur](#) **2024**
- Introduction to Large Language Models by Google cloud | [Coursera](#) **2023**

Education

Lovely Professional University

Phagwara, Punjab

Bachelor of Technology | Computer Science & Engineering | **CGPA: 7.5**

Sep 2022 – Present