

YASH JONDHALE

Machine Learning Engineer | AI / GenAI Systems | Data Science

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PROFESSIONAL SUMMARY

Published AI researcher and Computer Engineering graduate (CGPA 8.34/10) specializing in **machine learning, deep learning, NLP, and large language model (LLM) systems**. Experienced in building **Retrieval-Augmented Generation (RAG) pipelines**, predictive ML models, and **production-style microservices** using FastAPI, Docker, and REST APIs. Co-authored peer-reviewed research on AI-driven legal systems, applying **cosine similarity and softmax-based classification** to reach ~85% prediction accuracy. Seeking a Machine Learning Engineer / AI Engineer / Data Scientist role at a top global technology company to build scalable, high-impact ML systems.

TECHNICAL SKILLS

Languages: Python, C++, SQL, JavaScript

ML / Deep Learning: TensorFlow, PyTorch, Scikit-learn, Keras, CNN, Predictive Modeling, Model Evaluation & Tuning

NLP & GenAI: LLM Orchestration, Retrieval-Augmented Generation (RAG), Transformers, BERT, LangChain, Prompt Engineering, Vector Databases

Computer Vision: OpenCV, Real-Time Image Classification, CNN-based Detection Pipelines

Backend & MLOps: FastAPI, Flask, REST APIs, Docker, Microservices Architecture, Model Serving, Schema Design

Data & Analytics: Pandas, NumPy, EDA, OLAP, Statistical Analysis, Data Pipelines

Tools & Platforms: Git/GitHub, Linux, Jupyter, VS Code, Google Colab, SQLite, MySQL, MongoDB, Streamlit, PyQt6

PROFESSIONAL EXPERIENCE

AI/ML Intern | Edunet Foundation, Bengaluru

Dec 2024 – Feb 2025

- Engineered **OMEGA**, an end-to-end AI voice assistant, owning the full software development lifecycle from research through deployment.
- Built a voice-controlled automation pipeline in **Python** with an event-driven **PyQt6** interface, integrating speech recognition and NLP data pipelines.
- Reduced manual task-execution time by **40%** through automated workflows and intelligent model-serving logic.

Data Science Intern | Altair Engineering Pvt. Ltd, Pune

Mar 2024 – Jun 2024

- Developed a **predictive regression model** in Python to forecast solar power generation from historical weather and irradiation data.
- Improved forecast accuracy by **10%** through systematic data preprocessing, exploratory data analysis (EDA), and model optimization with **Scikit-learn**.

PROJECTS

NyayaAI — Judiciary Legal Intelligence System — Python, FastAPI, RAG, Gemini API, BERT, SQL, REST APIs

- Architected a **Retrieval-Augmented Generation (RAG)** decision-support engine and legal chatbot using **FastAPI** and the Gemini API, with scalable backend microservices communicating over REST.
- Integrated an **OLAP** analytics dashboard for real-time case insights and built cloud-based dataset retrieval with kagglehub for large-scale legal data processing.
- Combined **BERT-based Transformers** with SQL to automate case-fact extraction and power bail-prediction modeling.

InterviewXpert — AI-Powered Mock Interview Platform — Python, FastAPI, Gemini API, OpenCV, LLM Orchestration

- Built an **LLM orchestration** engine using the Gemini API to parse candidate resumes and dynamically generate technical interview questions.
- Integrated **OpenCV-based computer vision** pipelines to evaluate candidate video responses in real time for behavioral analysis.

Plant Disease Detection System — TensorFlow, CNN, OpenCV, Pandas, NumPy

- Trained and deployed a **Convolutional Neural Network (CNN)** for real-time leaf-image classification to detect localized plant diseases.
- Optimized preprocessing pipelines with Pandas and NumPy to improve model accuracy and inference reliability.

Solar Power Prediction Model — Python, Scikit-learn, Streamlit

- Designed a regression-based forecasting model for solar energy generation using historical weather datasets.
- Deployed the model via an interactive **Streamlit** UI to validate reliability across seasonal variations.

PUBLICATIONS & RESEARCH

"AI-Powered Legal Ecosystem: Advancing Justice Through Intelligent Adjudication, Professional Assistance, and Citizen Empowerment"

International Journal for Research Trends and Innovation (IJRTI), Vol. 11, Issue 4, Apr 2026 · ISSN: 2456-3315 · Paper ID: IJRTI2604038

- Designed and implemented the **"AI-as-Judge"** module and backend microservices architecture for the legal-intelligence platform.
- Applied **cosine similarity** for precedent matching and **sigmoid classification** for outcome probabilities, achieving **~85% accuracy** in case-outcome simulations.
- Integrated **Explainable AI (XAI)** for transparent model decisions; secured the platform per India's DPDP Act 2023 and SHA-256 cryptographic standards.

EDUCATION

B.E. Computer Engineering

Guru Gobind Singh College of Engineering & Research Centre (SPPU) | Nashik, Maharashtra | 2022 – 2026 | CGPA: 8.34/10

ACHIEVEMENTS & CERTIFICATIONS

- Maintained **8.34/10 CGPA** while completing 6+ production-grade AI/ML and software-development projects alongside 2 technical internships.
- Certifications: Artificial Intelligence (Edunet Foundation), Machine Learning Professional (Altair Engineering), Data Science & Machine Learning (YBI Foundation), Cybersecurity (Tech Mahindra).