

Naveen Jayaraj

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📍 Kozhikode, India

🌐 github.com/naveen-jayaraj

🌐 Portfolio

SUMMARY

AI/ML-focused developer with strong foundation in **Python, machine learning, and data analytics**, experienced in building scalable models, analyzing large datasets, and deploying intelligent systems. Interested in explainable AI, geospatial intelligence, and real-world data-driven applications.

EXPERIENCE

RedBus, Bengaluru, India

Aug 2025 – Present

Tech Intern

- Engineered an AI-powered pothole detection system using YOLOv8, processing **9,000+ video samples** and achieving **90% accuracy**.
- Built scalable data pipelines and REST APIs for real-time inference and analytics.
- Integrated geospatial visualization using Leaflet and OpenRouteService to derive actionable road insights.

Infosys Springboard, Remote

Oct 2025 – Dec 2025

AI Intern (PaperIQ Training)

- Designed **PaperIQ**, an AI-based research analyzer for extracting and summarizing insights from large academic datasets.
- Applied NLP and ML techniques to process structured and unstructured data efficiently.

Srishti Innovative Educational Services, Trivandrum, India

Dec 2024

AI/ML Intern

- Built machine learning models with preprocessing and evaluation, improving predictive accuracy on real-world datasets.
- Implemented end-to-end pipelines for data processing and model deployment.

PROJECTS

BreatheAnalyzer – AQI Intelligence Platform

- Architected a full-stack AI system using **FastAPI, React, Redis, and H3 geospatial indexing** for air-quality prediction.
- Built forecasting models and APIs for AQI prediction and spatial data analysis using external datasets.

Hybrid Intrusion Detection System

- Constructed a multi-layer ML pipeline using DFA, XGBoost, and ANN for real-time anomaly detection.
- Implemented data-driven threat classification and analytics dashboard.

Cost of Living Forecaster

- Built an LSTM-based time-series forecasting model achieving **R² up to 0.93**.
- Performed statistical analysis and visualization using Plotly and Streamlit.

OMR Evaluation System

- Implemented a computer vision-based grading system with scalable backend pipelines.
- Achieved **1st place (Rs. 1L)** in a national-level hackathon.

RESEARCH

Wildfire Detection

- Trained a YOLOv11 model on a 3.3K dataset, achieving **mAP@50: 0.84**.
- Optimized model performance to reduce false positives in real-world scenarios.

EDUCATION

SRM Institute of Science and Technology, Tiruchirapalli, India

2027

B.Tech CSE (AIML), GPA: **9.27**

Sree Gokulam Public School, Kozhikode, Kerala

2023

CBSE, 89.2%

SKILLS & CERTIFICATIONS

Skills

Languages: Python, JavaScript, TypeScript, C, C++

ML/AI: Machine Learning, Deep Learning, NLP, Computer Vision

Frameworks: FastAPI, Flask, TensorFlow, Scikit-learn

Data: Data Analysis, Statistics, Visualization (Plotly)

Databases: MySQL, PostgreSQL, MongoDB, SQLite

Concepts: Model Optimization, Explainable AI, Geospatial Analysis

Cloud: AWS, GCP

Languages Known: English, Malayalam, Tamil, Hindi

Certifications

- NPTEL DBMS (Top 5%)
- IBM Deep Learning (PyTorch, Keras, TensorFlow)
- Oracle Certified Generative AI Professional
- AWS Academy Cloud Foundations