

Yashwani Patidar

yashwanipatidarr@gmail.com | LinkedIn | GitHub | Portfolio | LeetCode | Kaggle | GeeksforGeeks

SUMMARY

Final-year AI & Data Science student with hands-on experience in GenAI, NLP, computer vision, and backend development. Built scalable AI and production-style applications using Python, Spring Boot, TensorFlow, PyTorch, SQL, Docker, and PostgreSQL. Passionate about solving real-world problems through intelligent and data-driven systems.

EDUCATION

Madhav Institute of Technology and Science

Bachelor of Technology in Artificial Intelligence and Data Science — CGPA: 8.16/10

Gwalior, MP

2022 – 2026

EXPERIENCE

Newgen Software

Application Engineer Trainee

Noida, Uttar Pradesh

Feb 2026 – Present

- Collaborated on enterprise workflow automation and backend application processes while following software engineering best practices and agile workflows.

PROJECTS

Hybrid Graph-Vector AI Assistant | [Link](#)

- Tech Stack:** Python, Neo4j, FAISS, PyTorch, Transformers, Docker, Nginx
- Built a GraphRAG-based AI assistant by integrating **Neo4j** knowledge graphs with **FAISS** vector search for accurate travel recommendation retrieval.
- Implemented an NLP pipeline using **DistilBERT** for embeddings and intent classification, reducing hallucinations through deterministic response generation.
- Developed custom **Cypher** queries and a scalable data ingestion pipeline to support multi-hop reasoning and complex itinerary queries.

FixnSlot – Auto-Care Booking Platform | [Link](#)

- Tech Stack:** Java Spring Boot, PostgreSQL, JWT, OAuth2, Razorpay, AWS S3, Docker, GitHub Actions
- Developed the backend for a real-time vehicle service booking platform supporting garage onboarding, slot scheduling, pricing, and booking workflows.
- Implemented secure authentication using Google OAuth 2.0 with JWT-based role management for customers and service centers.
- Integrated Razorpay payment gateway with order creation, signature verification, and transaction logging for service bookings.
- Designed RESTful APIs for booking lifecycle management, slot handling, garage discovery, and part verification workflows.
- Built CI/CD pipelines using GitHub Actions with Docker-based deployment and Nginx reverse proxy configuration.
- Designed optimized SQL queries for data retrieval and workflow validation.

Predicting Equipment Failure through Thermal Image Processing | [Link](#)

- Tech Stack:** Python, OpenCV, YOLOv8, Streamlit, Tesseract OCR, Plotly
- Developed a thermal image analysis system to detect electrical faults such as blown fuses, missing circuits, and overheating zones in electrical panels.
- Trained a YOLOv8-based object detection model on **200 thermal images** with **6,000+ labeled annotations**, achieving **97% mAP@50** for component-level fault detection.
- Integrated Tesseract OCR with threshold-based logic to extract temperature readings and automatically classify critical overheating regions in real time.
- Built an interactive Streamlit dashboard with Plotly visualizations for thermal inspection, fault analysis, and model result interpretation.
- Deployed the application on Hugging Face Spaces for real-time testing and accessible demonstrations of the detection pipeline.

SKILLS

Languages: Python, Java, SQL

GenAI & AI/ML: LangChain, RAG, Transformers, TensorFlow, PyTorch, Keras, scikit-learn, OpenCV, NLP, Computer Vision

Data Science & Visualization: pandas, NumPy, Matplotlib, Plotly

Backend & Tools: FastAPI, Flask, Spring Boot, REST APIs, Git, Docker, Postman, GitHub Actions

Databases & Vector Stores: PostgreSQL, MySQL, MongoDB, Neo4j, FAISS

Cloud & DevOps: AWS, Nginx, CI/CD

ACHIEVEMENTS/CERTIFICATIONS

- Solved 465+ DSA problems across LeetCode (180+) and GeeksforGeeks (300+).
- Java Bootcamp | SQL for Beginners using MySQL and Database Design | User-Centric Computing for HCI | Big Data Computing | Deep Learning for Computer Vision