

Yashwani Patidar

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SUMMARY

Application Engineer Trainee at Newgen Software with a strong foundation in AI, backend development, and enterprise applications. Experienced in Python, Java, GenAI, RAG, Spring Boot, TensorFlow, Docker, and PostgreSQL.

EDUCATION

Madhav Institute of Technology and Science

Gwalior, MP

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

2022 – 2026

EXPERIENCE

Newgen Software

Noida, Uttar Pradesh

Application Engineer Trainee

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