

PAYAL VERMA

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Portfolio: <https://euphonious-haupia-c93a3c.netlify.app/>

PROFESSIONAL SUMMARY

Results-driven Artificial Intelligence student with strong foundations in Python, Data Structures, Machine Learning, and Web Development. Demonstrated ability to build real-world applications using deep learning, and modern frontend technologies. Passionate about solving complex problems and contributing to impactful systems in high-performance tech environments.

EDUCATION

B.E. in Artificial Intelligence

2022-2026

G.H. Raisoni College of Engineering, Nagpur

Cumulative GPA: 8.4/10

TECHNICAL SKILLS

Languages: Python, SQL

Technologies & Tools: NumPy, Pandas, Scikit-learn, OpenCV, Matplotlib, Git, HTML/CSS

Concepts: Data Structures, Algorithms, Natural Language Processing, Deep Learning, Image Classification, Object Detection

Web: GitHub Pages

PROJECTS

Spam Mail Detection Web App

- Developed a web-based app that detects spam using NLP and a cleaned dataset of 5000+ messages
- Applied tokenization, stop-word removal, TF-IDF, and a Naive Bayes classifier
- Deployed using GitHub + Render with real-time prediction based on user input

Skin Disease Classification Using CNN

- Built a model to detect Psoriasis and Lichen Planus with 100% accuracy on test data
- Used deep learning (CNN) with image preprocessing, augmentation, and evaluation techniques
- Currently integrating the model into a web application for dermatology assistance

YOLOv5 Enhancement with DeepDream for Satellite Object Detection

- Improved YOLOv5 performance on xView dataset using DeepDream-based image enhancement
- Focused on small/dense object detection in satellite images for real-world defense applications
- Achieved higher precision for low-visibility objects by enhancing features before detection

Personal Portfolio Website

- Built and customized a fully responsive portfolio using Next.js and Tailwind CSS
- Integrated GitHub projects, animations, and interactive UI showcasing personal and academic work

CERTIFICATIONS

- 100 Days of Code: The Complete Python Pro Bootcamp – Udemy
- Data Visualisation – TCS(Forage)
- RDBMS PostgreSQL Training – Spoken Tutorial Project at IIT Bombay

RESEARCH & HACKATHONS

- **Research: Enhanced Object Detection in Satellite Imagery**

Working on integrating visual amplification into YOLOv5 for better performance on high-resolution data

ACTIVITIES

- **Participant – AI Odyssey 2025**

Engaged in AI-focused events and workshops exploring deep learning applications and ethical AI solutions.

- **Participant – Fluxus 2025, IIT Indore**

Contributed to the Face Recognition System project during Fluxus, the annual tech fest of IIT Indore. Recognized for technical dedication and innovative thinking in AI-based facial recognition systems.

ADDITIONAL INFORMATION

- **Languages:** English (Fluent), Hindi (Native)

- **Availability:** Immediate | **Work Preference:** Remote / Hybrid / On-site