# **PAYAL VERMA**

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Portfolio: payall03.github.io

#### **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 NLP, 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

### • Participant: Smart India Hackathon (SIH)

Contributed to a tech solution for a social impact challenge in the public sector

## **ACTIVITIES**

# • Participant – Al 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 Al-based facial recognition systems.

## **ADDITIONAL INFORMATION**

- Languages: English (Fluent), Hindi (Native)
- Availability: Immediate | Work Preference: Remote / Hybrid / On-site