Shirish Upadhyay

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Profile

Computer Science student specializing in AI/ML with hands-on experience in deep learning, computer vision, and backend development. Proficient in Python, TensorFlow, OpenCV, and FastAPI. Passionate about building scalable AI systems to solve real-world problems.

Technical Skills

Languages: Python, C++, C, JavaScript

ML Frameworks: TensorFlow, PyTorch, Scikit-learn

Data Libraries: NumPy, Pandas, OpenCV

Databases: MongoDB, SQL

Tools: Git, Linux, Google Colab, AWS, MongoDB Atlas

Soft Skills: Open-source collaboration, debugging, technical communication

Education

Garden City University

2022 - 2026 (Expected)

B. Tech in Artificial Intelligence and Machine Learning — CGPA 9+/10

Bengaluru, India

Experience

Open Source Contributor - reNgine

 $\mathbf{Jul}\ \mathbf{2022} - \mathbf{Aug}\ \mathbf{2022}$

 $Automated\ Reconnaissance\ Framework-Remote$

- Contributed to reNgine's Python modules to enhance automated recon workflows for cybersecurity.
 - Resolved core bugs and merged 5+ pull requests after collaborating with open-source maintainers.
 - Improved data parsing and detection efficiency within Django-based components.

Training and Internship – Greentick

May 2023 - Jul 2023

Manual Testing - Web App Test Case Management — Remote

- Executed 50+ manual test cases across Greentick modules; logged test runs in structured reports.
- Created and maintained BRD outlining app features, user flows, and access roles.
- Assisted with integration testing, bug tracking, and release validation cycles.

Projects

Facial Recognition Attendance System — Python, OpenCV, dlib, Pandas

Jul 2024 – Aug 2024

- Built a system for automated attendance logging using dlib-based facial recognition.
- Achieved 90%+ face match accuracy across 100+ students in variable lighting conditions.
- Reduced manual tracking by 80% using CSV-based Pandas export automation.

Maize Crop Detection Model — Python, Roboflow, OpenCV

Aug 2024 - Sep 2024

- Built a real-time maize detection system using Roboflow-trained datasets.
- Achieved 85% accuracy on video/image inference pipeline tested on 50+ samples.
- Reduced manual field inspection time by 60% through CV automation.

Full-Stack Web App (CRUD) — FastAPI, MongoDB Atlas, HTML/CSS/JS

Dec 2024 – Jan 2025

- Developed a CRUD platform managing 1000+ records using async FastAPI endpoints.
- Developed a CitoD platform managing 1000+ records using async rastArr endpoints

• Integrated secure JWT login and optimized DB performance with query indexing.

• Improved frontend performance by 30% through lazy loading and efficient state updates.

YOLOv8 Object Detection App — YOLOv8, Streamlit, OpenCV, gTTS

Jul 2025

- Built real-time object detection app supporting webcam/image/video at 15+ FPS.
- Enabled object-based voice feedback every 5s using multithreaded gTTS integration.
- \bullet Boosted UX by 40% via annotated image download and responsive Streamlit interface.

Achievements and Certifications

• Amazon ML Hackathon – Participant

Sep 2024

Built a feature extraction pipeline for structured data classification. Applied EDA and ensemble modeling (XGBoost) to boost accuracy by 12%.

- NDG Linux Unhatched Cisco Networking Academy (Jun 2023)
- Python Essentials Cisco Networking Academy (Mar 2023)