

TANUJA DESHPANDE

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OBJECTIVE

Motivated Computer Science Engineering graduate (2025) seeking an **entry-level role in Data Science / AI-ML** to apply knowledge of **Python, data analysis, and machine learning techniques** for deriving meaningful insights and building intelligent solutions. Proficient in **python, SQL, and software development principles**, with hands-on experience in developing data-driven applications. Possess a strong foundation in **statistics, data preprocessing, and model building**, along with an interest in solving real-world problems using AI. Committed to continuous learning, writing **clean and efficient code**, and contributing effectively to collaborative and fast-paced environments.

TECHNICAL SKILLS

Programming: Python, SQL
Frameworks: Django, Flask
Web Development: HTML, CSS
AI/ML & CV Tools: YOLOv8, OpenCV, NumPy, TrOCR
IoT Tools: ESP32, ThingSpeak, Sensors Integration
Tools: Git/GitHub, VS Code, Jupyter Notebook
Concepts: OOP, MVC Architecture, SDLC

INTERNSHIP EXPERIENCE

Core2Web Technologies, Pune Dec 2025 – Jan 2026
IoT Intern / Team Leader

- Led a team to develop an **IoT-based Machine Failure Prediction System** using ESP32 and multiple sensors.
- Captured real-time parameters such as temperature, vibration, sound, and current for machine health monitoring.
- Integrated cloud storage using **ThingSpeak** and enabled continuous visualization through dashboards.
- Designed the workflow to detect abnormal trends and generate maintenance alerts before failure.

Defense Institute of Advanced Technology (DIAT-DRDO), Pune Jul 2024 – Dec 2024
AI/ML Intern

- Trained a **YOLOv8-based object detection model** to identify surface cracks on industrial blades for automated inspection.
- Built training and evaluation pipeline using **Python, OpenCV, NumPy, and Ultralytics YOLOv8**.
- Performed dataset preprocessing and model validation to improve detection accuracy and reliability.

PROJECTS

Hybrid Traffic Safety System Jan 2025 – Apr 2025
YOLO (Ultralytics), TrOCR, Python

- Designed an AI-based traffic monitoring system to detect violations and improve road safety.
- Implemented Helmet Detection and Triple Ride Detection using object detection with YOLO (Ultralytics).
- Integrated an ANPR pipeline using TrOCR for automated number plate text extraction.
- Built an end-to-end workflow for real-time monitoring and violation identification.

Food Ordering System Apr 2022 – May 2022
Python, Django, MySQL

- Developed a full-stack food ordering web application using **Django** and MySQL integration.
- Designed backend modules for menu handling, order processing, and customer management.
- Enhanced admin portal functionality for efficient order tracking and updates.

EDUCATION

Sipna College of Engineering & Technology, Amravati 2021 – 2025
B.E. Computer Science & Engineering **CGPA: 9.21**

Shri Shivaji Science College, Amravati 2021
HSC **89.17%**

Model High School, Talegaon, Maharashtra 2019
SSC **85.20%**

CERTIFICATIONS & ACHIEVEMENTS

- Python Data Science – Core2Web (Currently Pursuing)
- Advance Python – HOPE Foundation (2025)
- Google Cloud Computing Foundation – Google Cloud (2023)
- Career Essentials in Generative AI – Microsoft & LinkedIn Learning (2023)
- Published research paper: **“Early Landslide Detection System Using IoT Sensors”** (IJAIIR, Vol. 11, 2024).
- Awarded **Lila Poonawalla Foundation Scholarship (LG-2021)**.