Om Ashrit Patel

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PROFESSIONAL EXPERIENCE

A.I Internship, *Personifwy* 07/2024 – Present
Learned ML, Deep Learning, Performed Text Classification. India

Internship, *CVRDE,DRDO* 12/2024 – 01/2025
The internship was a B.Tech CSE program undertaken by Mr. Om Ashrit Patel from the Institute of Science and Technology, Delhi, at the Combat Vehicles Research and Development Establishment (CVRDE), a part of the Defence Research and Development Organisation (DRDO). Conducted from September 12, 2024, to September 1, 2025, under the guidance of Mr. Chandrasekar R.P., Scientist 'E' of CVRDE, the internship project titled "A Thesis of Machine Learning - Driven Residual Useful Life Estimation (Rule) for Enhanced Maintenance of Aeronautical Mechanical Filters" focused on developing a system to estimate the remaining useful life of filters. The project involved analyzing parameters such as differential pressure, flow rate, and temperature, and using trained data to provide the best estimation for filter replacement or continued use, aiding informed maintenance decisions. Chennai,Avadi, India

Virtual Data Analytics Internship, *Shell India Markets Private Limited* 12/2024 – 01/2025
The internship was a 4-week virtual program on Artificial Intelligence and Data Analytics, with a focus on Green Skills, completed by Mr. Om Ashrit Patel. It was organized by AICTE, Shell India Markets Private Limited, and Edunet Foundation under the Skill4Future program, running from December 16, 2024, to January 16, 2025. The certificate acknowledges Om Ashrit Patel's participation and engagement in the program.

Campus Ambasador, *GoodGaming Nation* 2023
- Conducted 6 gaming tournaments, Reel creation, Brand promotion of GGN and as a content creator in GGN x IndiGG. Delhi, India

EDUCATION

B.Tech CSE[ai&ml], *SRMIST Delhi-NCR Campus* 2022 – Present
- Current GPA: 8.85/10 Modinagr, India
- Key Coursework: OOPS, DSA, COA, Artificial Neural Network, Machine Learning, Computer Networks, DBMS, Automata.
- Graduation Date: May 2026

CBSE 12th Board, *D.P.S Sambalpur* 2018 – 2020
Science (P,C,M,B, Computers) Sambalpur, India

SKILLS

C/C++
DSA, OOPS, STL Libraries.

Java
OOPS

Python
Pandas, NumPy, Matplotlib

Data Base
Sql, MySql, ORACLE,EXEL

Machine Learning
PyTorch, Tenserflow, Scikit-learn

Computer Vision Tools
OpenCV, YOLOV5

Version Control
Git, GitHub

Robotics
Arduino, Raspberry Pi
Sensors, Actuators,GSM

PROJECTS

Text Classification Using TensorFlow, *ML model* 07/2024 – 08/2024

- Developed a machine learning model with an accuracy of 92% to classify text data into 5 categories using TensorFlow.
- Preprocessed 50,000+ text samples, including tokenization, stemming, and removal of stop words, improving data quality and reducing noise by 20%.
- Achieved a precision of 88% and recall of 90%, utilizing cross- validation to prevent overfitting.
- Tools: Python, TensorFlow, Keras, NLTK, Pandas, NumPy

Real-Time Object Detection, *Using YOLOv5 and OpenCV* 09/2024 – 10/2024

- Developed a real-time object detection system with YOLOV5, achieving a detection accuracy of 96% across 20+ object categories.
- Processed 60,000+ images and live video feeds, optimizing detection speed to 30 FPS, ensuring smooth real-time performance.
- Fine-tuned the model's hyperparameters (confidence threshold: 0.5, loU threshold: 0.) to reduce false positives by 10% and enhance overall precision.
- Integrated the model into an application using OpenCV for real-time video stream processing and object tracking, achieving a response time of 0.05 seconds per frame.
- Tools: Python, YOLOV5, OpenCV, PyTorch, NumPy

Pet Face Classification, *Using Convolutional Neural Networks (CNN)* 08/2024 – Present

- Developing a CNN model achieving 9% accuracy in classifying 10+ pet breeds (cats and dogs) from 30,000+ images. Implemented image augmentation techniques to improve generalization by 15%, optimizing the model with a -layer CNN architecture.

Landmark Detection, *Using CNN and OpenCV* 08/2024 – Present

- Built a landmark detection system for human faces with 95% accuracy, identifying key facial points across 50,000+ images. Utilized a 5-layer CNN and achieved an average detection time of 0.02 seconds per image for real-time applications.

CERTIFICATES

- Core Concepts of Java
- Databases Foundations
- Artificial intelligence