

Komal Rote

EDUCATION

Usha Mittal Institute Of Technology, SNTD Women's University, Mumbai	2021 – 2024
Bachelor of Technology in Data Science	CGPA: 9.45
Government polytechnic, Thane	2021
Diploma in Computer Engineering	84.48%
Saraswati Vidyalaya, Vasind	2018
SSC (Secondary School Certificate)	87.00%

SKILLS

- **Programming Languages:** Python,C++.
- **Machine Learning Frameworks:** PyTorch, Onnx ,Hugging Face Transformers, Tensorflow.
- **Deep Learning Models:** YOLO,Faster R-CNN, TrOCR, CRNN, PaddleOCR, Tesseract , EasyOCR
- **Deployment & Development:** Flask-RESTFul , Docker
- **Libraries:** OpenCV, NumPy, Pandas, Scikit, Matplotlib

EXPERIENCE

Prisma AI | Machine Learning Developer

July 2024 - Present

Designed and developed advanced ML pipelines utilizing **YOLOv7** for real-time object detection, alongside **ResNet** and **VGG16** deep CNN architectures for feature extraction and image classification.

Worked on OCR systems based on **CRNN** and **TrOCR**, supported by image preprocessing techniques including resizing, sharpening, contrast enhancement, and adaptive thresholding using OpenCV and Pillow to significantly boost text recognition speed and accuracy.

Built RESTful APIs with **Flask-RESTful** and integrated them into **Gryphos** and **Veri5**, enabling seamless access to OCR and vision services through **Docker**-packaged, scalable model endpoints.

Contributed to **Gryphos**, Prisma AI's core vision platform deployed across thousands of cameras, powering features like face recognition, object detection, Text detection & recognition behavior analysis.

Developed critical modules for **Veri5**, a secure, contact-free KYC and identity verification product built on Gryphos, incorporating webcam-based facial ID, liveness checks, and document OCR to achieve sub-second verification in stadium, airports.

Optimized **PyTorch** inference pipelines to deliver low-latency, high-throughput performance tailored for real-time verification and surveillance applications. Implemented contour detection, template matching, and OCR-driven workflows to extract structured data such as names, passport numbers, and birthplaces—from scanned documents with high reliability.

• PROJECTS

Plant Disease Detection | [Python](#), [TensorFlow](#), [CNN](#)

[Source Code](#)

- Spearheaded the development of a sophisticated web and android application dedicated to plant disease detection, employing advanced technologies in the field of **computer vision and deep learning**.
- This innovative application consists of **Convolutional Neural Networks (CNN)** to accurately diagnose plant diseases, thereby offering invaluable support to the agricultural industry.

Twitter Sentiment Analysis | [Python](#), [HTML](#), [Machine learning](#)

[Source Code](#)

- Designed and implemented a web application for Twitter Sentiment Analysis, **integrating Python and employing machine learning algorithms** such as **Naive Bayes and lexicon-based approaches**.
- Contributed to both back-end functionality and front-end development using HTML and CSS, showcasing comprehensive skill set in Python, machine learning, and **web development**.

EDA (Exploratory Data Analysis) | [Python](#), [Jupyter](#)

Exploratory Data analysis On Kaggle Shark Tank dataset using python, created various types data visualization using python libraries, such as **Matplotlib, Seaborn, Pandas**.

This visualization are helpful compare multiple sets and highlight their key aspects.