

Piyush Sayaji Torawane

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Education

Vellore Institute Of Technology,

B.Tech. in Computer Science with specialization in AI & ML

July 2022 – July 2026

- CGPA: 8.19/10

Skills

Languages: Python, SQL, Node.js,

Framework/Tools: Flask, PyTorch, TensorFlow, Pandas, NumPy, Scikit-learn, Streamlit

Database System/Data Tools: MySQL, MongoDB, Power BI, Tableau, Excel

Projects

Panoptic Image Segmentation using Deep Learning | Tech Stack:Python, PyTorch, Deep Learning, Computer Vision

- Developed a panoptic segmentation model integrating semantic and instance segmentation using **Mask R-CNN (Detectron2)**.
- Trained and validated the model on the **COCO dataset**, improving object detection accuracy and segmentation precision through preprocessing and hyperparameter tuning.
- Implemented a real-time inference pipeline and evaluated performance using **mAP, IoU, and PQ metrics**.
- Utilized **Python, Deep Learning, Computer Vision**, and GPU-based training to optimize model performance and reduce training time.

HealthCare System | Tech Stack: Node.js, MongoDB, Machine Learning, AWS

- Developed a healthcare management platform enabling secure patient data handling and real-time record access.
- Built REST APIs for appointment scheduling, user authentication, and medical data retrieval, improving workflow efficiency.
- Integrated machine learning models (Random Forest, XGBoost) to analyze environmental parameters and support data-driven insights.
- Deployed components on AWS for scalable processing and high-availability access.

SEBI Safe Space – Financial Security & Compliance Platform |

Tech Stack: Flask, Streamlit, Machine Learning, MongoDB, REST APIs

- Engineered a 4-module SEBI compliance platform featuring AI-based fraud detection, deepfake identification, and advisor verification; processed 1,000+ financial records with 85%+ model accuracy.
- Built microservice-driven architecture with Python/Flask APIs and a Streamlit dashboard for real-time monitoring, automated compliance checks, and alert generation.
- Implemented secure data workflows and role-based access to enhance financial transparency and reduce manual validation time.

Certifications

- Oracle Cloud Infrastructure Generative AI - Oracle
- Oracle AI Vector Search - Oracle

Achievements

AwsxZelestra: Secured AIR-63 , beating 200,000+ participants from over 3,500 institutions.

IIM Ahmedabad CaseStudy Challenge 2024: Ranked Top 15 teams globally in a 36-hour innovation case study challenge.

SEBI FINANCE HACKATHON Finalist

Co-curricular

Club Coordinator, Fintech club

- Streamlined pipeline management processes through automation tools, reducing processing time by 35% and ensuring timely updates on 95% of scheduled financial review