# Divyashree Mallarapu

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# Objective

AI/ML Engineering student with hands-on experience in developing AI solutions and machine learning applications. Skilled in problem-solving and adapting to new technologies. Looking to apply my knowledge in a dynamic environment, collaborate with teams, and contribute to real-world AI-driven solutions.

#### Education

#### PES Institute of Technology and Management, Shivamogga

Dec 2022 - Mar 2026

Affiliated with Visvesvaraya Technological University (VTU), Belagavi Bachelor of Engineering in Artificial Intelligence and Machine Learning

Current CGPA: 8.85

Coursework: Data Structures and Algorithms, Artificial Intelligence, Machine Learning, Computer Vision

# **Experience**

AI Engineer Intern

Aug 2024 – Feb 2025

ResoluteAI Software Pvt Ltd (Remote)

- Developed YOLO-based object detection models achieving 95% accuracy and built production-grade real-time applications using Streamlit and OpenCV.
- Implemented advanced OCR using PaddleOCR and EasyOCR, achieving 90% accuracy in extracting text from legal and financial documents.
- Designed and fine-tuned image classification models (DenseNet, VGG19), improving accuracy by 20%.
- Built Text to Video and Image Generation systems, leveraging deep learning models to convert text descriptions into video clips and generate high-quality images.

### **Projects**

#### **Text to Image Generation App**

• Built a text-to-image generation model using diffusion models for high-quality image synthesis.

#### **RAG Document Chatbot**

• Built an AI-powered document chatbot using retrieval-augmented generation (RAG) for intelligent Q&A.

#### **Defect Detection in Rubber**

Developed a defect detection system for rubber blocks using YOLOv8 for object detection and SAM for segmentation.

#### **Predictive Maintenance for Industrial Machinery**

• Created machine learning models to predict equipment failures, reducing downtime and optimizing maintenance schedules.

#### **Political Bias Detection App**

• Built an NLP model to analyze political news articles, classify bias (Left/Right/Center), detect fake news, and compare sources from multiple news websites.

## **Skills**

Languages: Python, C, MySQL

Developer Tools: VS Code, Git, GitHub, Google Cloud Platform(GCP), Jupyter Notebook, Pycharm

Technologies/Frameworks: TensorFlow, Keras, YOLO (v5, v8, v11), sam, OpenCV, Hugging Face, Google API,

Streamlit, graddle

Soft Skills: Communication, Adaptability, Team collaboration, Problem-solving, Time management