

# VIMALRAJ D

ML Engineer | Deep Learning Enthusiast

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## SUMMARY

Motivated Machine Learning Engineer with experience in developing and deploying ML and Deep Learning models using PyTorch, OpenCV, and Scikit-Learn. Skilled in Python, NLP, RCNN, and RNN, with model deployment experience using Streamlit and Flask. Strong problem-solving skills and a commitment to continuous learning.

## TECHNICAL SKILLS

- Machine Learning: Classification, Regression, Clustering, Model Deployment,
- Deep Learning: CNN, RCNN, RNN, Object Detection, YOLO, Image Classification, NLP
- Programming Languages: Python, C, Java
- Libraries/Frameworks: PyTorch, Scikit-Learn, OpenCV, nltk, Transformers, Hugging Face
- Web Development: Flask (Backend), HTML, CSS (Frontend)
- Model Deployment: Streamlit
- Tools: Jupyter Notebook, VS Code, Git

## PROJECT EXPERIENCE

### 1. Book Recommendation System

- Built a machine learning model to recommend books based on user preferences.
- Deployed the system as a web application using Flask.
- Technologies: Python, Scikit-Learn, Flask, Pandas, HTML&CSS, Java Script

### 2. Face Detection Using OpenCV

- Developed a real-time face detection system capable of identifying multiple faces.
- Technologies: Python, OpenCV, YOLO
- Techniques: Image Processing, Bounding Box, Object Detection

### 3. Image Text Extraction

- Created a program to extract and display text from images given their file paths.
- Implemented Optical Character Recognition (OCR) using Tesseract.
- Technologies: Python, OpenCV, Tesseract OCR, NumPy, PyTorch, Streamlit
- Techniques: Image Preprocessing, OCR, Text Extraction

## WORK EXPERIENCE

### Machine Learning Intern : Unified Mentor

Sept 2024 - Oct 2024

- Duration: 1 Month
- Developed and optimized machine learning models for real-world applications.
- Applied deep learning techniques, including CNN using PyTorch.
- Improved model accuracy and efficiency by tuning hyperparameters and preprocessing data.

## CERTIFICATIONS

- NPTEL Certification: Introduction to Programming in C (Elite + Silver)
- Linguaskill Communication Skills Certification: B1 Level
- Machine Learning Internship Certificate : Unified Mentor

## EDUCATION

### Bachelor of Engineering in Computer Science and Engineering (AI & ML)

- Dr. Mahalingham College of Engineering and Technology  
Coimbatore
- Graduation : 2023-2027

## ADDITIONAL INFORMATION

- **Leadership:** Led teams in various college projects and competitions.
- **Problem-Solving:** Passionate about finding solutions to complex challenges.
- **Extracurricular:** Active participation in college events and hackathons.
- **Language:** English