Pallapothu Herambha Karthikeya Guptha

7382361501 | LinkedIn | GitHub | Uppugundur, Andhra Pradesh, India

OBJECTIVE

Motivated Diploma student in AI & ML with hands-on project experience in machine learning, computer vision, and application development. Seeking a Machine Learning internship to apply practical skills, contribute to real-world solutions, and grow within a dynamic team.

EDUCATION

Diploma in Artificial Intelligence & Machine Learning — Expected: 2026
Hindu College of Engineering and Technology — *CGPA: 8.67 / 10.0*
Uppugundur, Andhra Pradesh

TECHNICAL SKILLS

Languages:	Python
ML Libraries:	Scikit-Learn, NumPy, Pandas, Matplotlib, Seaborn, face_recognition
Computer Vision:	OpenCV
Web & Backend:	Flask, REST API, HTML, CSS
Desktop & Mobile UI:	KivyMD, PyInstaller
Database & Cloud:	MySQL, Firebase, Render (Cloud Hosting)
Tools & Platforms:	Git, GitHub, Pickle, Joblib, pyttsx3
ML Algorithms:	Support Vector Machine (SVM), KNN, Logistic Regression

PROJECTS

Face Recognition System using SVM — Python | OpenCV | Scikit-Learn | Flask | HTML/CSS

- Built a real-time face recognition system using Support Vector Machine (SVM) to identify family members via webcam with a Flask-powered web interface.
- Used the face_recognition library to generate 128-dimensional face encodings and trained an SVM classifier on a custom dataset; saved and loaded the model using Pickle.
- Implemented a complete end-to-end workflow: image collection, face encoding, SVM training, Flask REST backend, and live browser-based recognition display.

Handwritten Digit Recognition using KNN — Python | Scikit-Learn | OpenCV | NumPy | pyttsx3

- Trained a K-Nearest Neighbors (KNN) classifier on the MNIST dataset (70,000 images, 784 features per image) achieving real-time digit recognition via webcam.
- Applied image preprocessing pipeline: grayscale conversion, Gaussian blur, thresholding, ROI extraction, and resizing to 28x28 before flattening to 784 features for prediction.
- Added text-to-speech output using pyttsx3 to announce predicted digits; visualized training data and decision results using Matplotlib.

Herambha – Desktop Messaging Application — Python | Flask | PyInstaller | Render | REST API

- Developed a full-stack desktop messaging application with email OTP authentication, packaged as a Windows .exe using PyInstaller and distributed via GitHub Releases.
- Built and deployed a Flask REST API backend on Render cloud platform, integrating the Resend Email API for secure OTP-based user verification.
- Designed a KivyMD-based multi-screen UI with friend list navigation, chat interface, and real-time message sending functionality.

Logistic Regression Admission Predictor — Python | Scikit-Learn | Pandas | Matplotlib | Seaborn

- Built a binary classification model using Logistic Regression to predict student admission outcomes (Admitted / Rejected) based on exam and interview scores.
- Visualized the dataset with scatter plots and plotted the decision boundary separating admitted and rejected students using Matplotlib and Seaborn.

- Implemented a CLI-based prediction interface; saved and reloaded the trained model using Joblib as part of a clean, structured ML project workflow.

KEY STRENGTHS

- Strong foundation in Python programming and ML algorithms
- Self-taught learner with experience building end-to-end ML projects from free resources
- Hands-on experience with computer vision and real-world data applications
- Familiar with version control using Git and GitHub for project management
- Eager to learn, adapt, and contribute in team environments

DECLARATION

I hereby declare that the information provided above is true and correct to the best of my knowledge and belief.

Place: Uppugundur **Pallapothu Herambha Karthikeya Guptha**