MADHAN THANGAVEL

Kodungaiyur, Chennai

93607 39056

https://www.linkedin.com/in/madhan04

madhanthangavelu04@gmail.com

CAREER OBJECTIVE

As a passionate AI enthusiast, I aim to join a collaborative team where I can apply my foundational knowledge in AI/ML models to contribute to real-world, innovative solutions. I am eager to enhance my skills by working on hands-on projects, while staying aligned with the latest advancements in artificial intelligence and machine learning.

ACADEMIC QUALIFICATION

- B.Sc. (CS) from "St. Thomas College of Arts of Science" (Affiliated to Madras University), Chennai in the year 2021-2024 with an aggregate of 65%
- HSC from "Sri Sayee Vivekananda Vidyalaya MHSS", Chennai in the year 2021 with an aggregate of 87%
- SSLC from "Sri Sayee Vivekananda Vidyalaya MHSS", Chennai in the year 2019 with an aggregate of 80%

TECHNICAL SKILLS

Programming Languages : Python, Core Java

Concepts : Object-Oriented Programming (OOP), Collections Framework, Exception Handling, Multithreading, Control Structures (if, switch, loops), Methods, Access Specifiers, Operators, Arrays, Recursion, File handling

Database : MySQL

ML Framework : InsightFace

Libraries : OpenCV, NumPy, SciPy, Pickle, datetime

Modules & Tools : FaceAnalysis, Logging, Cosine Similarity

Productivity Tools : Ms Office Suite (Word, Excel, PowerPoint, Power BI), Adobe Photoshop

PROJECT

Face Recognition-Based Attendance System Using Arcface Model

Developed an automated attendance system using Python, OpenCV, and MySQL. The system captures live video via webcam, detects and recognizes faces using the ArcFace model, and records attendance by storing the individual's name, date, and time in a MySQL database. Utilized dependencies such as opencv-contrib-python, onnxruntime, and insightface. This solution streamlines attendance management for educational institutions and workplaces.

INTERNSHIP EXPERIENCE

Lead Integrated Business Services

PYTHON DEVELOPER (Jan 2025 - April 2025)

• Initiated research on the ArcFace model during college to build a basic face recognition system.

• During the internship, developed it into a full face recognition-based attendance system by:

- Integrating with a database to log attendance with date and time.
- Enabling real-time face detection via IP camera integration.

• Gained hands-on experience in Python, working with YOLOv5 and YOLOv8 object detection models to understand model training, data annotation, and evaluation.

• Worked on data preprocessing and tested detection models as part of AI development.

• Automated Instagram post generation in n8n using Mistral Cloud Chat model, Telegram Bot, Webhook, Code, If, and HTTP Request nodes.

- Implemented dynamic user selection and regeneration logic via Telegram Trigger buttons, used AI to generate captions and images, handled logic and API calls with Code and If nodes, and sent previews back to Telegram for user approval before publishing.

• Used MySQL for managing structured data with proper constraints for efficient data management.

• Collaborated with developers and followed best practices while exploring AI integration with real-time systems.

• Developed ,debugging and problem-solving skills across both Java and Python-based environments.

• Gained hands-on experience with Flask by developing basic web applications using routes, Jinja templates, and POST/GET methods.

CERTIFICATIONS

1. **Python for Data Science**

   GREAT LEARNING | June 2024

2. **SQL for Data Science**

   GREAT LEARNING | June 2024

3. **Junior Grade Typewriting English**

   SHANTHI SHORTHAND ACADEMY | February 2018

4. **Karate Black Belt**

   OKINAWA JUNDOKAN GOJU RYU KARATE DO ASSOCIATION INDIA | September 2021.