Mahima Jain

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EDUCATION

Bachelor of Computer Administration *Asia Pacific Institute of BCA | 2021 - 2024*

Seth Shri IN Patel Swaminarayan Vidhyalay Sankul | 2018 - 2020

SKILLS

Programming Languages:

Python, ML,NLP, PyTorch, Computer Vision , Model Training,Chatbots,Machine Learning Algorithms,Problem Solving,Pattern Recognition,SQL,Numpy,Pandas

WORK EXPERIENCE

AI/ML Engineer *Mehta Softech LLP | 08/2023 - Present*

- Developed a face recognition-based attendance system integrating face recognition for accurate identification and real-time tracking.
- Created an HR chatbot using Natural Language Processing (NLP) to facilitate user data retrieval from a database API.

Technologies: Face Recognition, Chatbot Development, NLP

PROJECTS

1. Facial Recognition API Development for Employee Attendance

Description:

- Developed a facial recognition API using base64 encoding for matching employee faces with stored images.
- Integrated seamlessly into the company's attendance system for automated check-in and check-out processes.
- Enhanced security and efficiency by implementing biometric-based authentication.

GitHub: https://github.com/mahi12jain/face$_{m}atch/tree/v1$

2. Hand Gesture Recognition for Human-Computer Interaction

Description:

- Developed a hand gesture recognition system using computer vision techniques.
- Implemented image preprocessing to extract features from hand gestures captured via camera input.
- Trained a machine learning model to classify hand gestures into predefined signs or commands.
- Designed for enhancing human-computer interaction in applications such as virtual reality, sign language interpretation, and gesture-based control systems.

GitHub: https://github.com/mahi12jain/hand-gesture-recognition/tree/main1

3. Python-Based Personal Assistant Inspired by Jarvis

Description:

- Created a Python-based personal assistant with a range of functionalities inspired by Jarvis.
- Features include alarm setting, dictionary lookup, personalized greetings, keyboard input handling, music playback control, news retrieval, web search capabilities, WhatsApp messaging, and browser control for opening and closing tabs.
- Designed for streamlining daily tasks and providing convenient access to information and services through voice or text input.

GitHub: https://github.com/mahi12jain/Jarvis/tree/jarvis

4. Face Recognition System for Personal Identification

Description:

- Developed a face recognition system using machine learning techniques to detect and identify individuals.
- Trained the model on a dataset of labeled facial images to recognize specific individuals.
- Implemented algorithms to accurately detect faces in images and match them to trained data, displaying the corresponding individual's name.
- Designed for enhancing security and personalized user experiences in various applications such as access control and personalized services.

GitHub: https://github.com/mahi12jain/face$_{R}ecognition$

5. Hand Tracking System for Real-Time Gesture Recognition

Description:

- Developed a hand tracking system using computer vision techniques to detect and track hand movements in real-time.
- Implemented the system using OpenCV and MediaPipe to capture video input, process frames, and accurately detect hand landmarks.
- Trained the system to recognize specific hand gestures and track hand positions, enabling gesture-based interactions.
- Designed for applications such as gesture-based control, sign language recognition, and interactive gaming, enhancing user interaction and experience.
- The system processes video input at 30 FPS on a CPU, ensuring smooth and responsive performance.

GitHub: https://github.com/mahi12jain/-Hand-Tracking-System-for-Real-Time-Gesture-Recognition

6. Eye-Controlled Mouse

Description:

- Developed an innovative eye-controlled mouse system using computer vision techniques to enable hands-free interaction with a computer.
- Leveraged OpenCV, MediaPipe, and PyAutoGUI to detect and track facial landmarks, particularly focusing on the eyes, to control the mouse cursor and perform click actions.
- The system processes real-time video input from a webcam, detects eye movements, and translates these movements into corresponding mouse actions on the screen, enhancing accessibility and providing an alternative input method for users with limited mobility.

GitHub: https://github.com/mahi12jain/-Eye-Controlled-Mouse

7. Mail Classification using LLMA3

Description:

- Developed an AI-powered email management system using Python and specialized language models (LLMs).
- Implemented an email classification agent leveraging the Ollama model from Langchain Community to categorize emails as 'important', 'casual', or 'spam'.
- Designed a responsive agent to generate concise responses based on email importance, ensuring efficient inbox management.
- Demonstrated proficiency in natural language processing, AI delegation, and sequential process handling.

GitHub:https://github.com/mahi12jain/Agent$_{l}lma3/blob/main/llama3.py$