Tanmoy Patra

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GitHub : https://github.com/Tanmoy023
Portfolio Website : tanmoypatraportfolio.freewebhostmost.com

Objective

As a passionate Computer Science student with a strong foundation in Python, Data Structures, some python libraries for Data Analysis, and Database Management, I have hands-on experience in developing AI-driven projects such as voice-activated assistants and real-time object detection systems using machine learning models like YOLOv8. I am also proficient in web development technologies and have built dynamic applications like a Spotify clone. Eager to leverage my skills and projects in machine learning, AI, and web development to contribute to innovative and impactful solutions.

Skills

❖ Python
- Extensive knowledge on OOP, File Handling, Exception Handling, Modules, Packages, Environment Setup, Libraries, Tools and Basic Shell Scripting on python.

❖ DSA in Python
- Strong foundation on DSA with knowledge about Time Complexity, ADT, Searching and Sorting Algorithm, Linked List, Stack, Queue, Tree, Graph, BFS and DFS.

❖ Data Analysis with Python
- Proficient in using NumPy, Pandas, and Matplotlib for data manipulation, analysis, and visualisation. Skilled in handling datasets, performing data preprocessing, and creating insightful visualisations.

❖ DBMS in SQL
- Proficient on Writing Queries, Joins & DDL, DML, TCL operation with good understanding of R-DBMS concept like constraints, table, Normalization etc.

❖ Basic Website designing
  - ➢ HTML : Proficient in html structure, attributes, from, list, tags etc.
  - ➢ CSS : Good Knowledge of CSS selector, Box model, flex, position, grid, animation etc.
  - ➢ JavaScript : proficient in DOM concept with good knowledge on methods, array, objects, promises etc.

Projects

❖ Voice-activated AI assistant
  - ➢ A Python-based voice-activated AI assistant integrating multiple python libraries like speech_recognition, pyttsx3, google.generativeai, os, webbrowser, subprocess and datetime.
  - ➢ GitHub uploaded code

❖ Real-Time Object Detection with YOLOv8, OpenCV, and cvzone
  - ➢ This project implements real-time object detection using the YOLOv8 model, OpenCV, and cvzone. It captures video from a webcam, detects objects in the frame, and draws bounding boxes with labels and confidence scores. The script also supports video file input.
  - ➢ GitHub uploaded code

❖ Spotify Clone Web
  - ➢ Developed a Spotify clone using HTML, CSS, and JavaScript that replicates core features of the music streaming platform. The application supports playing pre-uploaded music with a responsive design and custom playbar for music control. Features dynamic album displays and song playlists, allowing users to browse and play songs seamlessly.
  - ➢ Website Link
  - ➢ GitHub uploaded code

Education

❖ B. Tech : Computer Science and Engineering

College of Engineering and Management, Kolaghat   Pursuing   2021-Pursuing

❖ Higher Secondary Education : WBCHSE Board

Hat-Sarberia Dr Bidhan Chandra Roy Smriti Sikshaniketan (H. S.)   82%   Completed in 2021