Yash Singhal

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EDUCATION

Thapar Institute of Engineering and Technology   Patiala, Punjab
Bachelor of Engineering in Computer Science   *Aug. 2023 – May 2027*

EXPERIENCE

Girl Up TIET   Patiala, Punjab
Member   *Sep 2024 - Present*
- Actively participated in team management and collaborative projects.
- Worked on leadership, teamwork, and interpersonal skills.

PROJECTS

Tesla Stock Price Prediction using Facebook Prophet
- Developed a time series forecasting model for Tesla stock prices using Facebook Prophet.
- Analyzed stock trends and visualized predictions for better decision-making.
- Implemented the project using Python, Pandas, Matplotlib, and Prophet.

Paste App | *React, Vite, Tailwind CSS, Redux, React Router*
- Developed a web-based Paste App using React and Vite for fast and efficient performance.
- Implemented a clean UI with Tailwind CSS for a responsive and modern user experience.
- Integrated Redux for state management and React Router for seamless navigation.
- Configured ESLint for code quality and used Vite for optimized development workflow.

Whale Detection using YOLOv8 | *TensorFlow, YOLOv8, Data Preprocessing*
- Developed a whale detection model using YOLOv8 in TensorFlow with a custom dataset.
- Preprocessed the data for training by resizing images, normalizing, and augmenting data.
- Used TensorFlow for training YOLOv8 with custom anchors and three detection heads.
- Fine-tuned the model to improve accuracy in detecting whales in various environments.

News App | *HTML, CSS, JavaScript, NewsAPI*
- Developed a web-based News App that fetches real-time news articles using the NewsAPI.
- Implemented search functionality for different topics and optional site-based filtering.

Email Spam Detection | *Python, Scikit-learn, Natural Language Processing*
- Developed a machine learning-based spam email detection system using Scikit-learn.
- Preprocessed email data with tokenization, stopword removal, and TF-IDF vectorization.
- Implemented classification models (e.g., Naive Bayes, SVM) and evaluated their performance.

Virtual Fitness Tracker | *Streamlit, MediaPipe, OpenCV-Python*
- Developed a virtual fitness tracker app for real-time workout tracking and goal management.
- Used Streamlit for the user interface, MediaPipe for pose detection, and OpenCV for video processing.
- Implemented real-time workout tracking with user progress visualization and personalized suggestions.

Chatbot | *Langchain, Streamlit, Google Gemini AI*
- Developed a conversational AI chatbot using Langchain and Streamlit for user interaction.
- Integrated Google Gemini AI for processing and generating dynamic responses.
- Implemented a user-friendly interface using Streamlit, enabling interactive question-answering.
- Enabled context-based conversation flow with Langchain to enhance user experience.

Question Pair Detector | *Scikit-learn, Fuzzy Wuzzy, Streamlit*
- Developed a question pair detector to identify duplicate or similar questions.
- Utilized Scikit-learn for feature extraction and Fuzzy Wuzzy for fuzzy matching of text.
- Built a user interface with Streamlit for real-time detection of question pairs.
- Improved performance by fine-tuning threshold values and using different similarity measures.

CERTIFICATIONS

Tesla Stock Price Prediction using Facebook Prophet   Jan 2025
Coursera Project Network

Introduction to Cybersecurity , Networking Basics   Jan 2025
Cisco

Problem Solving Certificate , Python Certificate   Nov 2024
HackerRank

TECHNICAL SKILLS

Languages: Python, C/C++, SQL, JavaScript, HTML/CSS, R
Frameworks: React, Node.js, Mongoose,express.js,FastAPI
Developer Tools: Git,VS Code, Visual Studio,Mongo DB, Kaggle, Google Colab
Libraries: pandas, NumPy, Matplotlib, Scikit-learn, Tensorflow, Keras, NLTK