YASHODIP KOLHE

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PROFILE SUMMARY

Motivated Computer Engineering student passionate about machine learning, computer vision, and AI technologies. Over a year of learning experience and hands-on practice in data science and machine learning. Proven ability to tackle complex problems, drive innovation, and develop predictive models. Committed to continuous learning and adept at adapting to new technologies. Future plans include pursuing a Master's degree in AI.

PROJECTS

1. Sign Language to Audio Conversion.

Developed a real-time gesture recognition system to detect hand signs, predict messages, and convert them into audio.

Utilized **Mediapipe** for pose estimation and **TensorFlow** for training a **CNN model**. Captured video with **OpenCV**, extracted keypoints with **Mediapipe**, and saved data. Trained **CNN model** for real-time gesture classification with **text-to-speech output**. Achieved high accuracy in real-time Sign Language recognition. Proficient in image data generation with **OpenCV**, **Mediapipe**, and **TensorFlow**.

2. Student Mark Prediction System.

Predict student marks and understand the modular programming.

Employed **nine regression models** trained on the dataset including features like study hours and previous grades. Evaluated models using **RMSE**, **MAE**, **and R2** Score to identify the most effective one. Utilized **Flask** for web page creation, implementing **logging** for effective debugging. Acquired skills in professional project **environment setup** for **modular programming** in VS Code, and **GitHub** usage.

3. The YouTube Toolkit using Generative ai.

Python application for handling YouTube videos download, transcript extraction, and summary generation.

Implemented Python libraries such as pytube, youtube_transcript_api, and Streamlit for YouTube content handling. Utilized Google's Gemini API (Gemini model) for transcript summarization and securely managed environmental variables with dotenv. Achieved easy YouTube content download, efficient transcript extraction, expanded knowledge in generative AI, and leveraged Streamlit for web development.

4. Amazon Data Visualization with Power BI.

Expertly visualize Amazon data using Power BI for insightful analysis

Meticulously cleaned Amazon data and created diverse charts with advanced filtering. Developed interactive dashboards to enable dynamic exploration of the data.

EXPERIENCE

Research Work: Ideathon Project Lead, Mental health, and well-being surveillance, assessment and tracking solution among children.

Jan 2017 - Jan 2019

- Led theoretical research proposing the integration of machine learning models for children's mental health, based on the analysis of 100+ cases.
- Conceptualized a theoretical framework for a comprehensive surveillance and tracking system, outlining strategies for early intervention without implementing the system.
- Received recognition at college-level events such as Smart India Hackathon & Avishkar 2k24 for innovative theoretical research contributions.

Domain Lead, Google Developer Student Clubs (GDSC-SCOE):

Jan 2017 - Jan 2019

- Conducted UI/UX training sessions and organized hackathons.
- Collaborated with diverse domain experts including ML, data science, blockchain, etc.

SKILLS

- Machine learning fundamentals: supervised/unsupervised learning, model training/evaluation.
- Python skills: Experienced with libraries like matplotlib, pandas,numpy scikit-learn, seaborn, TensorFlow, etc.
- Data analysis: Experienced with data manipulation, analysis, and exploratory data analysis, including tools like Power BI, and Excel.
- computer engineering fundamentals: Web development, UI/UX design, C++, data structures, object-oriented programming (OOP), operating systems (OS), SQL, etc.
- Research capabilities: Capable of providing solutions for real-world problems using machine learning techniques.
- Non Technical Skills: Critical Thinking, Adaptability, Time Management, Independence, Curiosity and Eagerness to Learn

CERTIFICATIONS

• Python Programming for Beginners (CERTIFICATE)	2022 -02 - 2022-03
• Hands-On Pandas on Kaggle (CERTIFICATE)	2023 -09 - 2023-10
• Hands-On Data Cleaning on Kaggle (CERTIFICATE)	2023 -09 - 2023-10
• Linear Algebra for Machine Learning and Data Science (CERTIFICATE)	2023 -09 - 2023-10

EDUCATION

B.TECH : Computer	CGPA: 7.7	Savitribai Phule Pune University	Dec 2021 - Present
Engineering			
Higher Secondary Certificate (H.S.C)	Percentage: 89.80%	Savitribai Phule Pune University	December 2021
Secondary School Certificate (S.S.C)	Percentage: 78.00%	Maharashtra State Board	May 2019