VENU GOPAL GUBBALA

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in Linkedin Github

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✓/>Leetcode

EDUCATION

Indian Institute Of Technology(IIT), Bhilai

B.Tech in Data Science & Artificial Intelligence

• CGPA:7.74/10

Tirumala Junior College

12th Class, BIEAP

• CGPA:9.48/10

Bhilai, Chhattisgarh

July 2020 - Present

Andhra Pradesh June 2018 - May 2020

WORK EXPERIENCE

Data Science Intern at CDAC - Pune

May 2023 - July 2023

- Designed an innovative image segmentation and clustering algorithm meticulously tailored for detecting inhabitation areas with exceptional precision, spearheading its development.
- Attained an impressive Intersection over Union (IOU) score of 79%, validating the algorithm's efficacy in accurately identifying building structures through segmentation techniques, demonstrating prowess in image processing.
- Applied advanced DBSCAN clustering methodologies to effectively pinpoint inhabitation zones, showcasing adeptness in data analysis and clustering with a notable silhouette score of 0.69, reflecting a robust understanding and application of clustering techniques.

PERSONAL PROJECTS

MultiModal AI Chat: Integrating Whisper, LLaVA, and Chroma for Seamless Conversations Q

- Spearheaded the development of a cutting-edge Multimodal AI Chat application, integrating state-of-the-art AI models including Mistral LLM for text, Whisper AI for audio transcription, LLaVA for image processing, and Chroma DB for PDF interactions.
- Implemented quantized models for efficient performance on consumer hardware, ensuring a seamless user experience without the need for high-end computing resources.
- Leveraged a diverse set of tools including Chroma DB, cTransformers, Transformers, LangChain, and Streamlit, demonstrating proficiency in utilizing a wide range of technologies to create innovative solutions.

DiabetesRisk+: Precision Prediction and Imbalance Management for Diabetes Detection Q

- Constructed a diabetes prediction model utilizing Pandas, Scikit-Learn, Matplotlib, Flask, and Heroku, with a special emphasis on addressing dataset imbalance effectively through advanced sampling techniques.
- Employed cutting-edge sampling techniques, including SMOTE (Synthetic Minority Over-sampling Technique), to mitigate class imbalance and enhance the robustness of the predictive model, resulting in improved precision and recall scores.
- Integrated Flask and Pywebio frameworks to develop an intuitive web interface for real-time diabetes risk predictions, leveraging the highly accurate model with precision of 0.85 and recall of 0.88, empowering users with actionable insights.

AI-Enhanced ATS Checker Using Gemini ()

- Developed an AI-powered Applicant Tracking System (ATS) resume checker using cutting-edge technologies like Gemini Pro API, Fitz, and Streamlit.
- Enabled data-driven resume optimization for targeted job applications, maximizing interview opportunities.
- Implemented a clear "good match" scoring system (>80%) to empower candidates with actionable insights for a faster job search.

Advanced Potato Disease Prediction System 🗘

- Built a Potato Disease Prediction Model with Python, TensorFlow, and Flask, deployed on AWS EC2. Utilized TensorFlow for image classification and Flask for user interface integration, ensuring scalability and reliability.
- Obtained an 88% accuracy rate in predicting potato diseases through image analysis. The model aids farmers in timely disease identification, enhancing crop management and agricultural productivity.

SKILLS

Programming languages Python, SQL, C++

Artificial Intelligence Stack Data Science, Data Analytics, Machine Learning, Natural Language Processing, LLMs, RAGs

Web Application Development HTML, CSS, Django, Flask, MongoDB

Other Tools Git , VSCode , Linux , Excel , Heroku

Python libraries Pandas, Numpy, Matplotlib, Seaborn, SciKit-Learn, Transformers, LangChain, OpenCV, Tensorflow,

NLTK, Spacy, Beautiful Soup, Flask.

ACHIEVEMENTS

- Completed solutions for 600 challenges on LeetCode and CodeChef platforms.
- Scored in the 98th percentile in the JEE mains Exam.
- Secured a prominent ranking of 2300 in the JEE Advanced Exam.