Mokshitha Mandadi

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EDUCATION

Chaitanya Bharathi Institute of Technology

Bachelor of Engineering in Computer Science CGPA: 9.46/10

Hyderabad, India 2020-2024

(Learning Team Lead Neural Nexus, CBIT)

Relevant Coursework: Data Structures, Artificial Intelligence, Machine Learning, Database Management Systems, Software Engineering, Internet and web technologies, Operating Systems, Mathematical Foundations for Data Science and Security, Cloud technologies

WORK EXPERIENCE

Hexagon Capability Center India

Hyderabad, India

Software Developer

May 2024 - Dec 2024

Software Developer Intern

Aug 2023 - April 2024

- Developed **SDX copilot**(a multi-agent AI framework) using Langchain, Langgraph, Fast API which automates the process of creating SDX workflows.
- Revamped database schema to streamline operations on the database by identifying and removing redundancy and duplicates.
- Developed a versatile full-stack website using **Django**, allowing administrators to create customizable forms dynamically. Users can effortlessly fill out and update these forms, with the data automatically stored in a backend database.
- Designed Power BI dashboards for organisation technology stacks.

Barclays Global Service Center

Pune, India

Technology Intern

Jun 2023 – Aug 2023

- Crafted a user-friendly visualization tool using Flask REST framework, leveraging open-source technologies.
- Enabled automated syncing of production and disaster recovery databases using **Python** scripts, with real-time alerts for seamless monitoring. And implemented size alert notifications for the database schemas.

Panace.ai

Project Intern

Hyderabad, India

Sep 2022 – Nov 2022

- Developed a flask-based text-to-speech app with 30 different voices, fostering natural and engaging interactions in healthcare settings.
- The project explores open-source APIs (Mozilla TTS, Pyttsx3, Tacotron 2, and WaveGlow models, Text to Emotion API) for simulating conversations and varying voices, enhancing accessibility and emotional nuances in communication, with added consideration for emoticons.

ACADEMIC PROJECTS

Road Safety Enforcement System Using Deep Learning and Computer Vision

- Developed a deep learning-based integrated system for vehicle detection, helmet violation detection, and vehicle emission detection. to ensure road safety and pollution control by experimenting with YOLOv5, YOLOv7, YOLOv8, YOLOv9, and TrOCR models and finally integrating them with the Django framework.
- Achieved remarkable results with a maximum mean average precision (mAP) of 69% for vehicle emission detection, 88% for number plate detection, 83% for helmet detection using YOLOv9, and 86.5% for vehicle detection using YOLOv8.

Brand Name Generator for Drugs | Python, TensorFlow, and NLP

- Engineered an NLP tool powered by **Gated Recurrent Unit** (GRU) a type of recurrent neural network (RNN), to swiftly generate brand names that are unique for pharmaceutical drugs.
- Optimized the model using the Adam optimizer, which resulted in an accuracy of 90 percent.

Book Recommendation System | Python, Machine Learning, and NLP

- Designed a book recommendation system using a hybrid approach that combines K-means clustering and KNN algorithms.
- The system performed with precision of 83% and a recall of 80%. It also accurately generated tailored book recommendations based on user interests and book ratings, ensuring an accurate and personalized reading experience.

Sentimental Analysis on Twitter Data | Python, NLP, DL, ML

- Conducted extensive experiments in sentiment analysis on Twitter data, exploring diverse machine learning and deep learning algorithms such as Naive Bayes, Random Forest, SVM, KNN, CNN, and LSTM.
- Results: Bag of Words achieved 71% accuracy with SVM (linear) and 70% with Random Forest. TF-IDF yielded 0.69 with SVM (linear) and 0.68 with Random Forest. FastText hit 70% with SVM. Advanced models impressed, with CNN delivering 93% accuracy, while LSTM soared to an impressive 95%, showcasing deep learning's efficacy in capturing sentiment nuances on Twitter.

AWARDS AND ACHIEVEMENTS

- Secured first position in Hexagon's 24-hour hackathon, <u>Hexathon Code for Planet 2023</u>, outperforming 1600 participating teams with our team of four 'Enigma' by developing a solution for sustainable manufacturing utilizing Deep Learning.
- Led a team in developing a portal to identify eligible individuals for pension benefits in India, securing a position as a Smart India Hackathon 2022 Finalist from a pool of over 20,000 idea submissions.
- Mentee in Amazon ML Summer School 2023

SKILLS AND INTERESTS

Technical Skills: Python, C, SQL, JavaScript, HTML, CSS, Django, Flask, Fast API, TensorFlow, Langchain, Langgraph, Bootstrap Data Structures, Machine Learning, Deep Learning, Natural Language Processing, DBMS, REST-API, Data Structures and Algorithms, Power BI.