

CHARAN BASAVA

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PROFESSIONAL SUMMARY

Computer Science student with strong hands-on experience building full-stack web applications and applied AI systems. Skilled in backend development, REST API design, and real-time system engineering. Developed multiple end-to-end projects integrating machine learning models into practical applications. Seeking an entry-level software engineering role to build scalable and impactful solutions.

EDUCATION

- B.Tech in Computer Science & Business Systems – SRKR Engineering College, Bhimavaram CGPA: 8.21 | 2023–2026
- Diploma in Computer Engineering – BVC Institute of Technology & Science, Batlapalem Percentage: 87% | 2020–2023

PROJECTS

AI Mood-Based Music Recommender | Tech: ReactJS, Django, Hugging Face Sentiment API, Spotify API :

- Developed a full-stack AI application that analyzes free-form user text using DistilBERT sentiment models and maps detected emotions to relevant music recommendations via Spotify Web API.
- Designed Django REST APIs to process real-time mood predictions, integrate Hugging Face transformers, and handle seamless communication between frontend interface, backend logic, and external music services.
- Implemented secure user authentication and data storage using Firebase Authentication and Firestore, enabling personalized mood tracking, session management, and consistent user experience across multiple devices.
- Built responsive React interface with Tailwind CSS and embedded Spotify player for seamless mood-based music interaction.

Real-Time Multiplayer Drawing Game | Tech: Node.js, Socket.IO, HTML5 Canvas, bcrypt (auth) :

- Developed a real-time multiplayer drawing and guessing platform using Socket.IO, enabling synchronized whiteboard interaction, chat communication, and turn-based gameplay across multiple connected users with minimal latency.
- Engineered secure authentication using bcrypt and session management, allowing users to create private rooms with unique codes and ensuring controlled access and protected gameplay environments.
- Implemented core game logic including automatic word selection, role switching, score tracking, and winner detection, maintaining fairness, engagement, and continuous gameplay across multiple rounds.

Semantic Skill Gap Identification using Sentence-BERT | Tech: Python, Flask, Sentence-BERT:

- Built a multi-module AI system using Sentence-BERT embeddings to perform semantic skill matching, enabling accurate detection of skill equivalence beyond traditional keyword-based and TF-IDF approaches.
- Designed a modular pipeline integrating resume parsing, cosine similarity matching, and threshold-based classification, enabling identification of skill gaps between candidate profiles and job descriptions.
- Integrated XGBoost-based salary prediction model and Adzuna API for job discovery, enabling data-driven career insights including salary classification, skill demand analysis, and geographic job expansion.
- Implemented LLM-based interview simulation using Llama API with optimized inference latency, enabling generation of role-specific responses and improving system interactivity for real-time career guidance.

CERTIFICATIONS & WORKSHOPS

- Prompt Engineering – [EDX](#) July 2024
- Web Development with HTML, CSS, and JavaScript – [IBM](#) via [EDX](#) June 2024
- Python Essentials 1 & 2 – [Cisco](#) January 2024
- AI Skills Workshop – [SRKR Engineering College \(with Brainovision & AICTE\)](#) June 2025

SKILLS

Programming Languages: Python, JavaScript

Frameworks: Django, React.js

Web Technologies: HTML5, CSS3, Bootstrap, REST APIs

Databases: MySQL, SQLite

AI & Machine Learning: Scikit-learn, Pandas

Developer Tools: MS Office, Git, Postman, Render