

PERUMALLA SATYA VARUN

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SUMMARY

Aspiring software developer with a strong foundation in web technologies and programming. Proficient in **HTML, CSS, JavaScript, Python, Java, SQL, and PHP** with hands-on experience in **front-end and back-end development, database management, and deep learning model training**. Eager to contribute to the development of **scalable, user-centric applications** in a dynamic and growth-oriented environment that values **efficiency, creativity, and technical excellence**.

EDUCATION

Vignan's Foundation for Science Technology and Research, India **2022 – 2026**

- Batchelor of Technology, Information Technology, CGPA: 8.15

Jaya Bharathi Junior College, Gurazala, India **2020 – 2022**

- MPC (Class XII), Percentage – 90.03

PROJECTS

Fit Pulse

VFSTR, Guntur

Web Developer

Dec, 2025 – May, 2026

- Developed a full-stack fitness application using the MERN stack with secure JWT authentication and role-based dashboards for Users, Trainers, and Admins.
- Integrated TensorFlow.js and Google Generative AI to implement real-time exercise posture tracking and predictive fitness analytics.
- Built real-time networking and instant messaging features using Socket.io for seamless communication between gym members and trainers.
- Designed a modern, responsive UI using Tailwind CSS, Framer Motion, and Recharts for interactive animations and workout data visualization.

Query-by-Humming

VFSTR, Guntur

Python Developer

Dec, 2025- May, 2026

- Developed a humming-based music identification system using Python, Librosa, and deep audio processing techniques to retrieve songs from hummed queries.
- Implemented pitch extraction and normalization using the PYIN algorithm with Dynamic Time Warping (DTW) for accurate similarity-based song matching.
- Utilized Audio Spectrogram Transformer (AST) and LAION-CLAP models to generate robust audio embeddings for melody recognition.
- Processed and analyzed audio features such as Mel spectrograms, tempo, waveforms, and pitch contours for improved retrieval performance.
- Built and tested the system on a Telugu melody song dataset, achieving effective Top-K song retrieval with scalable support for larger music databases.

Goat Disease Identification Using Deep Learning

VFSTR, Guntur

Python Developer

Dec, 2024- May, 2025

- Built a disease detection model using a custom goat dataset.
- Applied augmentation techniques, increasing training data volume by **60%**.
- Trained CNN, VGG19, and Inception models, achieving **85% accuracy**.
- Improved model performance by **10–15%** post augmentation.
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TECHNICAL SKILLS

- **Programming Languages** : Python, C++, C, Java.
- **Web Technologies** : JavaScript, CSS, HTML, React.js, PHP.
- **Cloud Platforms** : AWS (EC2, S3), GitHub.
- **Data Base** : SQL, MongoDB.
- **Tools** : VS Code, Google Colab, XAMPP, Git.

- **AI & Machine Learning** :Deep Learning (CNN,VGG19,Inception),Introductory exposure to LLMs
PyTorch, TensorFlow
- **Backend Development** : FastAPI, Flask, REST APIs, JSON
- **Python Libraries** : Numpy, Pandas, Matplotlib, Scikit-learn

ACHIEVEMENTS

- **2*** rating in codechef -2024.
- Solved over 200+ problems in various coding platforms like leetcode,CodeChef and HackerRank.
- Competed in multiple **national-level hackathons**, including HackwithInfy and Amazon Hackathon, gaining hands-on experience in problem-solving.

COURSES & CERTIFICATIONS

- Certified in Programming in c++ certification from NPTEL – 2024.
- Python (Basic) from HackerRank (covered the programming concepts of python).
- Sql(Basic) from HackerRank