

Guduru Bala Manikanta Sai

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Summary

Driven computer science professional with expertise in software development, deep learning, and competitive programming. Focused on designing scalable systems, optimizing code performance, and improving efficiency across applications. Experienced in leading and collaborating on impactful projects, with research publications and hackathon success. Strong foundation in mathematics and problem-solving, with a passion for building high-performance, reliable, and efficient AI-driven solutions. Proven leadership, adaptability, and a commitment to continuous learning.

Education

VIT-AP University	2022 – 2026
B.Tech. in Computer Science and Engineering	CGPA: 9.39/10
Sri Chaitanya Jr. College, Andhra Pradesh	2020 – 2022
MPC Stream, Board of Intermediate Education	Percentage: 97.3%
Sri Chaitanya Techno School	2019 – 2020
Secondary Board of Education	GPA: 10.0/10.0

Skills

Languages: Java, Python, C, JavaScript
Tools: Git, Docker, n8n, Replit
Databases: PostgreSQL, SQLite, MongoDB
Frameworks: Scikit-learn, NLTK, SpaCy, TensorFlow, Flask, LangChain
Platforms: Raspberry Pi, Arduino, Windows, Linux, AWS, Google Cloud
Domains: Machine Learning, NLP, Web Development, Agent Development, Distributed Storage
Methodologies: Agile, Team Collaboration, Project Management

Experience

Contributor – Rewear (via GSSoC)	Jun 2025 – Present
<ul style="list-style-type: none">Improved frontend and backend modules, merging 10+ pull requests with bug fixes and new features.Optimized database schema for better query efficiency and scalability.Collaborated with distributed contributors using Agile workflows and Git version control.	

Project Work

AI-Based Warehouse Surveillance System (APSCSCL)
<ul style="list-style-type: none">Built an AI-powered surveillance system for gunny bag counting, vehicle/facial recognition, and event detection, handling 20+ CCTV cameras concurrently.Designed a scalable, containerized architecture using Docker, RabbitMQ, and MongoDB.
Crystal Clear Vision: Cataract Prediction (Transfer Learning)
<ul style="list-style-type: none">Fine-tuned 6 transfer learning models, achieving 98.82% precision in cataract prediction.Deployed models via Flask server for user-friendly access to medical professionals.
Federated Learning on Raspberry Pi 4
<ul style="list-style-type: none">Deployed federated learning on Raspberry Pi 4 for privacy-preserving neural network training.Co-authored a review paper on federated learning in smart agriculture, highlighting sustainability benefits with 15+ citations.

Open Source & Community Engagement

Vice President, SEDS VITAP, Amaravati

Sep 2023 – Present

- Authored a research paper on the Oort Cloud, exploring its role in solar system evolution.
- Managed technical festivals, driving participation of 350+ students.

Campus Ambassador, VIT-AP – GirlScript Summer of Code (GSSoC)

Jun 2025 – Present

- Represented VIT-AP in the GSSoC initiative, promoting open source culture and community involvement.
- Guided peers in contributing to beginner-friendly repositories, helping new contributors make their first pull requests.

Certificates and Awards

- MongoDB Associate Database Administrator Certification
- AWS Certified Cloud Practitioner (Issued on 19/07/2025)
- Introduction to Computer Science (CS50, Harvard University)
- Artificial Intelligence using Google TensorFlow (SmartInternz)
- Published 2 research papers with 25 citations
- 1st place at NASA Space Apps Challenge Local Event, Amaravathi