

Gundubogula Nageswara Venkata Durga Sai

Roll No.: 24CS10097

Bachelor of Technology

Indian Institute of Technology , Kharagpur

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EDUCATION

Bachelor of Technology in Computer Science and Engineering

2024-2028

Indian Institute of Technology , Kharagpur

CGPA: 9.17

Intermediate

2022 - 2024

Tirumala Junior College, Katheru

Score: 987/1000 (98.7%)

WORK EXPERIENCE

Research Intern

Under Prof. Pawan Goyal, IIT Kharagpur

Dec 2025 - Present

- Built **multi-agent system** for **IPL Auction** with **LLM agents** executing **strategic bidding** under budget constraints.
- Developed **automated team selector** generating **optimal playing XI** using **LangChain**.

Software Development Intern

May - Aug 2025

Asandevnest (Remote)

- Developed **unified communication platform** for WhatsApp/Email bulk messaging with **95% delivery rate**
- Built **N8N workflow automation** for Instagram DMs based on comments, reducing manual effort by **80%**

PROJECTS

ORCH: Multi-Agent System Framework

Mar 2026 - Apr 2026

DSL Engine [Repo], PyPI, and VS Code Extension

- Built a **Distributed Compilation Pipeline** using **OCaml** and **Python** for high-speed parsing and transpilation.
- Developed **AEON/ORCH DSLs** with tiered memory (**Private, Public, Global**) for isolated agent state management.
- Published a **VS Code Extension** and **PyPI library** with **CI/CD** workflows for automated testing and IDE support.

File Encryption Application

Jul 2025 - Dec 2025

Custom hash-based encryption Streamlit prototype and CLI Tool

- Built **Streamlit** web prototype and **C++17** terminal-based CLI for file encryption.
- Features: Encrypt/decrypt up to **10 GB** with password validation, **XOR/bit rotations**, **parallel chunked processing**.
- Implemented **dynamic cost function** that exponentially increases password hashing complexity based on need.

Tic-Tac-Toe AI Agent

Dec 2025

Deep RL agent trained via self-play for optimal strategy (Live Demo)

- Engineered a master-level agent using **Deep Reinforcement Learning (REINFORCE)** and **Self-Play** in **PyTorch**.
- Optimized policy gradients via custom reward shaping and exploration across 50,000+ training episodes.
- Deployed a responsive **Streamlit** web interface enabling real-time inference for low-latency gameplay.

TECHNICAL SKILLS AND INTERESTS

Languages: C/C++, Python, Javascript, HTML+CSS, MATLAB, Prolog, Ocaml

Libraries: C++ STL, NumPy, Pandas, Matplotlib, Scikit-learn, LangGraph, React, Next.js, N8N, REST APIs

Frameworks: ReactJs, Next.js, TensorFlow, PyTorch

Coursework: Algorithms, Programming Paradigms for Computing, *Deep Learning Specialization (Coursera)*

Areas of Interest: Machine Learning, Deep Learning, Convolutional Neural Networks, Reinforcement Learning

COMPETITIONS

Advanced Narrative RAG | KDSH Finalist GitHub Link

Jan 2026

Top 10 Finalist from 1000+ at KDSH Kshitij, IIT Kharagpur: **CoMoRAG** and **Negation search** for retrieval

Smart India Hackathon (SIH) | Hyperspectral Image Classification

Sept 2025

Developed **CNN** and **LSTM** prototype in MATLAB for land-cover classification using **PCA** feature extraction.

ACHIEVEMENTS

Secured **All India Rank 588** in **JEE Advanced 2024**, in the top 0.25% of 2.5 lakh qualified candidates.

Secured **All India Rank 1464** in **JEE Main 2024** with a **99.92%** percentile among 12+ lakh candidates.

Secured **All India Rank 165** in **JEE B.Planning 2024**.

Secured **State Rank 240** in **AP EAPCET 2024 (Engineering)**. among 2.5+ lakh candidates.

Achieved a **Codeforces rating of 1250** in competitive programming contests.