

# GELLA HARSHA VARDHAN

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Aspiring Software Engineer with skills in backend development, cloud technologies, AI/ML, and Generative AI. Competitive programmer with strong problem-solving abilities and a passion for creating innovative, real-world solutions.

## EDUCATION

### B.Tech in Artificial Intelligence & Data Science

Koneru Lakshmaiah Education Foundation, Vijayawada, India

May 2022 - May 2026

GPA: 9.8/10

### Intermediate (MPC)

Sri Viswa Junior College, Visakhapatnam, India

May 2020 - May 2022

GPA: 9.3/10

## SKILLS

**Programming Languages:** C Language, Python, Java

**Web Frameworks & Libraries:** HTML, Tailwind CSS, JavaScript, React.js, Flask, Django, Node.js, Express.js

**AI & ML:** Machine Learning, Deep Learning, TensorFlow, GenAI

**Database:** MongoDB, MySQL

**Cloud:** AWS

**Tools & Technologies:** Visual Studio Code, Git, GitHub, PyCharm

## WORK EXPERIENCE

### Data Science Intern

May 2024 - Jun 2024

#### EI Systems

Remote

- Built a **House Price Prediction model** using Python, achieving **90%+ model accuracy** on test data.
- Handled and preprocessed **10,000+** rows of housing data, improving model performance by **15%**.
- Improved model performance by **15%** through feature selection and hyperparameter tuning.

## PROJECTS

### Event Management System

**Tech Stack:** React.js, Flask, MongoDB, Tailwind CSS

**Problem Statement:** University clubs lacked an efficient system to manage events, track participation, and reward engagement across both technical and non-technical events.

#### Solution:

- Developed a centralized hub for university clubs to host, manage, and promote events across domains.
- Implemented a points-based system to track participant engagement across **tech and non-tech** events.
- Designed modular dashboards for **Users, Admins, and SuperAdmins** with role-specific functionalities.
- Enabled real-time attendance marking to replace manual tracking.
- Optimized **MongoDB performance by 50%** using indexing and efficient query design.

### AI-Powered Serverless Diagramming Tool

**Tech Stack:** React.js, AWS Lambda, Graphviz, Cognito, S3, DynamoDB, Amplify, DeepSeek LLM

**Problem Statement:** Existing diagramming tools are rigid, requiring time-consuming manual design. Users needed a more efficient way to instantly generate and customize technical diagrams from natural language.

#### Solution:

- Developed a serverless web app that generates **ER, UML, and flowchart diagrams** from natural language prompts with **90%+ accuracy** using DeepSeek LLM.
- Integrated **Graphviz** for high-quality SVG rendering, ensuring fast and dynamic diagrams.
- Utilized AWS Lambda, API Gateway, and DynamoDB for scalable, real-time processing, ensuring low-latency responses.
- Implemented OTP-based authentication using Amazon Cognito and **JWT-secured API routes** for secure access and data integrity.
- Built a responsive UI with React.js and Tailwind CSS, deployed via AWS Amplify with **CI/CD** to achieve **sub-2s** response times.

## CERTIFICATIONS

TensorFlow Developer  by Google

Python Programming  by IBM

Problem Solving through Programming in C  by NPTEL

## AWARDS

Secured 5th position in the NeoCodeThon Contest among 5000 participants by NeoPat

Selected for Amazon ML Summer School 2024