

# MEGHANA KURUVA

meghana.k23@iiits.in | LinkedIn | GitHub

## CAREER OBJECTIVE

An enthusiastic Computer Science and Engineering student seeking a software development internship where I can apply my knowledge of full-stack web development and AI/ML concepts, gain hands-on industry experience, and contribute to building efficient and scalable applications.

## EDUCATION

<b>Indian Institute of Information Technology, Sri City</b> <i>B.Tech in Computer Science and Engineering</i>	<b>2023 – Present</b> CGPA: 8.5
<b>Ratna Junior College (with Aakash Institute)</b> <i>Intermediate Education</i>	<b>2021 – 2023</b> Board of Intermediate Education
<b>Good Will High School</b> <i>Secondary Education</i>	<b>2021</b> State Board

## TECHNICAL SKILLS

**Programming Languages:** C, C++, Python, JavaScript, Java, SQL

**Frameworks:** Node Js, Express Js, React Js, Tailwind, Bootstrap, REST API

**Cloud Databases:** MySQL, PostgreSQL, MongoDB

**ML / DL:** Scikit-learn, PyTorch, Neural Networks, Classification, Regression, Clustering, numpy, pandas

**Tools:** Git, Ollama, Mistral, Postman

**Platforms:** Github, Vercel, Render

**Relevant CourseWork:** Data Structures and Algorithms, Database Management Systems, Operating Systems, Computer Networks, Object-Oriented Programming

## PROJECTS

**Railway Sleeper Crack Detection (Honours Project)** [Link]  
Technology Stack: Deep Learning, Computer Vision, CNNs, Python

- Developed a YOLOv8-OBb model to detect structural defects with **92%+ mAP**, utilizing Oriented Bounding Boxes to reduce localization error by 15 and labeled a dataset of 169+ high-resolution images from Roboflow, implementing data augmentation (rotation, shearing) to increase model robustness against varying lighting conditions.

**Heart Disease Prediction** [Link]  
Technology Stack: PyTorch, Neural Networks, Classification

- Achieved an **86% F1-score** on the UCI Heart Disease dataset; optimized the architecture with Dropout ( $p=0.5$ ) and Adam optimizer, reducing generalization error by 12
- Validated model stability through K-fold cross-validation, ensuring a variance of less than 3

**Chat Application** • Live Project  
Architected a real-time communication pipeline using WebSockets (Socket.io), reducing message delivery latency to under 150ms while supporting concurrent data streams for multiple active rooms  
Designed theme-based UI personalization features, enabling users to customize visual elements across five distinct themes and enhancing accessibility for users who required higher contrast ratios.

**Swipe** • Live Project  
Engineered a fluid swipe-to-match interface using Framer Motion. Implemented authentication, live chat using Socket.io and RESTful APIs for seamless communication.  
Implemented a stack-based state management system to handle a local pool of 20+ profile cards, reducing unnecessary DOM re-renders by 25

## POSITIONS OF RESPONSIBILITY

**Core Member at Epoch Club (AI/ML)** 2024 – 2025  
– Designed the official website for **CyberTea 2.0**, a major event organized at IIIT Sri City.  
– Managed a 2-day AI/ML Hackathon for 25 groups (83 total participants), overseeing project evaluations and event logistics within a strict 3-hour daily window.

**Member at BeatTrippers Dance Club** 2023 – 2024  
– Represented the university in competitive events at Utkrishta and Abhisarga cultural fests