

MEGHANA KURUVA

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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

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

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, DBMS, Operating Systems, Computer Networks, OOP

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%.
- 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.
• Designed theme-based UI personalization features across five distinct themes, enhancing accessibility for users requiring higher contrast ratios.

Chasing Horizons • Live Project
• Architected a full-stack travel platform featuring an AI-driven Q&A assistant that improved user support efficiency by providing real-time trip planning responses.
• Engineered a personalized recommendation engine using sentiment analysis on user reviews to curate tailored hotel and tour packages, increasing user selection accuracy.
• Optimized the booking workflow by integrating a live availability system that cross-references user preferences with real-time data to ensure 100% data consistency during checkout.

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 83 participants, overseeing evaluations and logistics.

Member at Beat Trippers Dance Club 2023 – 2024
• Represented the university in competitive events at Utkrishta and Abhisarga cultural fests.