

# RATNA BABU BANTUPALLI

Vijayawada, Andhra Pradesh, India

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## SUMMARY

Motivated and enthusiastic final-year B.Tech (IT) student graduating in 2026, with a strong foundation in full-stack web development, AI/ML, and problem-solving. I've developed a deep understanding of web technologies, generative AI, and machine learning models. I enjoy solving complex problems, working in collaborative environments, and continuously learning new technologies. Open to opportunities where I can contribute meaningfully and grow as a software engineer.

## EDUCATION

### Andhra Loyola Institution of Engineering and Technology

Bachelor of Technology in Information Technology

### Narayana Junior College

Intermediate (MPC)

2022 - 2026

Vijayawada, Andhra Pradesh, India | **CGPA : 7.49**

2020 - 2022

Andhra Pradesh, India | **Percentage: 75.1%**

## TECHNICAL SKILLS

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

**Web Development:** HTML/CSS, React.js, Next.js, Node.js, Tailwind CSS

**Backend:** Django, Firebase, MongoDB

**AI & ML:** ML Algorithms, Generative AI, TensorFlow, Keras, Scikit-learn

**Developer Tools:** Github, VS Code, Google Colab, Figma

**Areas of expertise:** Data Structures and algorithms, UI/UX, OOPS, DBMS

## INTERNSHIPS & CERTIFICATIONS

### AI/ML Intern

June 2024 - July 2024

Edunet Foundation

- Gained hands-on experience in ML workflows including data preprocessing, model training, and evaluation.
- Built basic ML models using Python in Google Colab
- Explored supervised learning techniques and visualized model performance.

### Full Stack Developer Intern

Aug 2025 - Present

Innobyte Solutions

- Currently building a production-ready REST API with user authentication, task management, file uploads, and analytics using Node.js and MongoDB.
- Implementing secure role-based access, comment features, and notification simulation to enhance backend functionality.
- Preparing for cloud deployment with Swagger documentation, testing, and performance optimization.

## PROJECTS

### AI-Powered Website Builder using Gemini AI

- Developed an intelligent full-stack website generator using Gemini AI that creates Vite-based web applications from user prompts.
- Automated file structure generation and code writing using dynamic logic, significantly reducing manual development time.
- Tech Stack: **Gemini AI, React, Vite, Tailwind CSS, Convex DB**

### Handwritten Digit Classification using CNN

- Developed a deep learning pipeline with Convolutional Neural Networks (CNNs) using TensorFlow and Keras to classify MNIST handwritten digits, achieving high accuracy.
- Preprocessed and visualized data, trained and fine-tuned the model on Google Colab, showcasing end-to-end model development workflow.
- Tech Stack: **Python, TensorFlow, Keras, NumPy, Matplotlib, Google Colab**

### Coal Mines Carbon Neutrality Monitoring Platform

- Built a React web app to track and visualize carbon emissions in coal mines with dashboards and minespecific insights.
- Used Machine Learning (Linear Regression, Decision Trees) to predict future emissions and assess the impact of clean technologies.
- Tech Stack: **React.js, Chart.js, Python (Scikit-learn), HTML/CSS, Google Colab**

## ACHIEVEMENTS

- Local Winner - Nasa Space App Challenge:** Led a team of six in the NASA Space Apps Challenge Hackathon, where we were awarded "Best Storytelling App" for developing an educational platform that creatively showcased space exploration.
- Smart India Hackathon 2024:** Participated in Smart India Hackathon (SIH) 2024 with a team of six and developed a React-based web application to monitor and visualize carbon emissions in coal mines..