

C PAVAN KUMAR REDDY

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SUMMARY

Entry-level MERN Stack Developer with hands-on experience building full-stack web applications using React.js, Node.js, Express.js, and MongoDB. Developed real-world projects including a MERN CRUD application, an AI-powered visual search engine, and a machine learning-based drowsiness detection system. Strong foundation in JavaScript (ES6+), RESTful API development, and database design, with experience integrating frontend and backend systems.

EDUCATION

B.Tech in Artificial Intelligence & Data Science

Aditya College Of Engineering ,Madanapalle

(2021–2025) — 71%

INTERMEDIATE (MPC)

Sri Chaitanya Junior college, Tirupati

(2019–2021) — 88.7%

SKILLS

Frontend: HTML, CSS, JavaScript (ES6+), React.js, Tailwind CSS

Backend: Node.js, Express.js, REST APIs

Database: MongoDB, MySQL

Tools & Technologies: Git, GitHub, Postman, VS Code

AI/ML: TensorFlow, OpenCV, Machine Learning, Computer Vision, NumPy

Professional Skills: Team collaboration in project-based environments, technical documentation, independent task execution

PROJECTS

Drowsiness Detection Using Machine Learning

- Developed a real-time drowsiness detection system using Computer Vision and TensorFlow, achieving 94% eye-state accuracy.
- Applied facial landmark detection and EAR-based eye-closure analysis with a response time of 0.3–0.5seconds at 25–30 FPS.
- Integrated OpenCV with optimized NumPy-based frame processing, reducing latency by 20%.

Post App (MERN Full Stack)

- Created a full-stack MERN application supporting complete CRUD functionality using React.js, Node.js, Express.js, and MongoDB.
- Designed RESTful APIs with server-side validation and connected the frontend using Axios for real-time updates (<150ms response).
- Configured image upload handling using Multer and structured MongoDB schemas for efficient data management.

AI-Powered Jewellery Visual Search Engine

- Architected an AI-based visual search system using TensorFlow image embeddings, achieving 92% similarity-matching accuracy.
- Connected the React frontend with Node.js and Express.js backend and applied cosine similarity for image comparison.
- Enhanced MongoDB storage to manage 20,000+ embeddings, improving search performance by 30%.

EXPERIENCE

JSpiders — MERN Stack Developer Training

- Completed and deployed 5+ MERN-based applications, including CRUD and e-commerce workflows.
- Developed responsive user interfaces using React.js and Tailwind CSS.
- Configured REST APIs, basic authentication mechanisms, and Git-based version control.

ACHIEVEMENTS

- Won Project Expo Award for innovative project development.