

MOUNVIK KARNATI

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Education

Vellore Institute of Technology–AP

B.Tech in Computer Science and Engineering — CGPA: 8.85/10 (till 5th semester)

Sep 2023 – May 2027(Expected)

Andhra Pradesh, India

Experience

Software Development Intern

June 2025 – Jul 2025

Tribha Digital Solutions | [Homepage](#)

Hyderabad, India

- Engineered and deployed a scalable Tutors module supporting 100+ active profiles, optimizing database queries and reducing API response latency by 30%.
- Reduced UI re-render latency by 35% by implementing debounced listeners and optimized map rendering.
- Designed and optimized RESTful APIs handling 5K+ records with indexed MySQL queries and pagination strategies, reducing response time by 30%.

Projects

State Transit Driver Portal | *JavaScript, WebSockets, Leaflet.js, Web APIs* Visit [🔗](#)

Oct 2025 - Nov 2025

- Built a real-time vehicle tracking system using Leaflet.js and Geolocation API with OSRM routing and Haversine-based stop detection.
- Implemented event-driven state management for trip lifecycle, SOS alerts, and live passenger updates.
- Developed multilingual support (English, Hindi, Punjabi) using dynamic DOM updates with localStorage persistence.
- Added WebSocket-based tracking system reducing event propagation latency by 40%, supporting 500+ concurrent simulated users.

Certificate Management System | *JavaScript, HTML5, CSS3, XLSX.js* Visit [🔗](#)

Jan 2025 – Feb 2025

- Built a web-based certificate platform enabling creation, issuance, and lifecycle tracking through an admin dashboard.
- Implemented secure verification using unique 7-digit hash identifiers to prevent duplication.
- Developed a mobile-first frontend with Excel ingestion (XLSX.js) and real-time certificate preview generation.

Photon Club VIT-AP Official Portal | *Core Web Technologies, Git* Visit [🔗](#)

Aug 2024 – Oct 2024

- Led development of the official club website serving 200+ active members.
- Built modal-driven interfaces for event archives and executive profiles without page reloads.
- Integrated certificate lookup and download workflows to improve member accessibility.

Technical Skills

Languages: Java, JavaScript, Python, R

Frameworks: React.js, Node.js, Express.js, Spring Boot

Libraries: NumPy, Pandas, Matplotlib

Databases: MySQL, MongoDB

Other Technologies: Git, GitHub, REST APIs

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

Achievements / Positions of Responsibility

- Solved 300+ DSA problems on leetcode platform.
- 2 research papers accepted at IEEE international conference proceedings(Delhi Section and Bhubaneswar Section).
- Recognized as an arXiv endorser for the Computer Science (cs) category.
- Secured 9th position among 400+ teams in the SIH (Internal) Hackathon.
- Led and coordinated the successful execution of 10+ technical events, as Vice President, Photon Club VIT-AP.

Professional Certifications

- AWS Academy Graduate – Cloud Architecture Certificate.
- MongoDB Certified Associate Developer (Node.js) Certificate.