

Karan Manickam

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Education

KSR Institute for Engineering and Technology, Tiruchengode Oct 2022 – May 2026
Bachelor of Engineering in Computer Science **CGPA: 8.8 / 10**
Relevant Coursework: Data Structures & Algorithms, Object Oriented Programming, Operating System, DBMS, Networks, Software Engineering, AI, ML

Experience

Cube AI Solution, Tiruchengode Jan 2025 – Mar 2025
Front-End Development Intern

- Built responsive web apps using React, Tailwind CSS, and JavaScript, focusing on mobile-first design, reusable components, performance optimization, and cross-browser compatibility.
- Integrated REST APIs with efficient data rendering and used MongoDB and MySQL for real-time data operations, ensuring seamless data flow, low-latency updates, and robust backend connectivity.

Octanet Services Pvt. Ltd., Chennai (Hybrid) Jan 2024 – Mar 2024
Full-Stack Development Intern

- Built end-to-end solutions using React, Node.js, Express.js with dynamic MongoDB and MySQL integration.
- Optimized UI design for consistency and performance while enhancing backend API security and routing.

Projects

Interview Preparation Tracker [\[GitHub\]](#)

- Designed a full-stack DSA tracker using Node.js, Express.js, MongoDB with features for progress monitoring, problem tagging, and admin controls.
- Integrated live compiler, AI assistant, and curated links (LeetCode, GFG, YouTube) for each topic to assist learners in real-time with hands-on practice, personalized guidance, and quick access to learning resources.

Vision-Based Drowsiness Detection [\[GitHub\]](#)

- Engineered a vision-based drowsiness detection system using Python, OpenCV, and Haar cascades to monitor driver alertness through real-time webcam feed.
- Integrated Pygame for real-time audio alerts and Twilio API to send WhatsApp messages when drowsiness is detected, ensuring timely driver notifications and enhanced road safety.

Technical Skills

- **Languages:** Java, JavaScript
- **Frontend Technologies:** HTML, CSS, ReactJS, Tailwind CSS
- **Backend Technologies:** Node.js, Express.js, REST API, MongoDB, MySQL
- **Tools:** Git & GitHub, Postman, VS Code, IntelliJ

Accomplishments

- Solved 100+ coding problems on LeetCode, GFG, and HackerRank, building strong DSA skills.
- Completed virtual Experience Programs with Tata, AWS, and Accenture via The Forage in cloud, software design and security
- Built projects at KIRO & AlgoFeast Hackathons, presented papers, and attended workshops, showcasing full-stack skills and innovation.

Certifications

- Diploma in Computer Applications (DCA)
- Network Security Certification
- Java Full Stack Developer – [Coursera](#)
- JavaScript Programming – [Coursera](#)