

# MANIKANDAN M

B.E Computer Science and Engineering

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## Objective

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Pre-final year Computer Science student focused on building real-world, scalable applications using AI, full-stack, and mobile technologies. Experienced in developing production-grade systems in road safety, finance tracking, and automation. Strong interest in solving ambiguous problems, taking ownership of systems, and delivering impact-driven solutions under constraints.

## Education

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### B.E. Computer Science and Engineering

2023 – 2027

Kumaraguru College of Technology

CGPA: 7.19 / 10

## Technical Skills

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**AI & Machine Learning:** OpenCV, YOLOv8, scikit-learn, Pandas, NumPy

**Programming:** Python (Advanced), TypeScript, JavaScript, Dart

**Full Stack:** MERN Stack, Next.js, REST APIs

**Mobile:** Flutter, Firebase

**Data:** MongoDB, SQL

**Tools:** Git, Linux, Docker

**Core Subjects:** Data Structures, Algorithms, OOP, DBMS, OS, Computer Networks

## Projects

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### Kapaan – AI-Based Emergency Response System

*YOLOv8, Computer Vision, FastAPI, Flutter, Firebase*

- Built a real-time accident detection system using YOLOv8.
- Designed full pipeline from video input to emergency alert system.
- Integrated dashboards for police and ambulance coordination.
- Implemented real-time notifications and live location tracking.
- Awarded **Best Performing Team – UYIR Hackathon 2025**.
- [GitHub Repository](#)

### KoreConnect – MERN Food Ordering Platform

*MongoDB, Express, React, Node.js*

- Developed a real-time campus food ordering platform.
- Designed backend APIs and order lifecycle system.
- Built responsive UI with live order tracking.
- [Live](#) [GitHub](#)

### KMRL – Metro Optimization Platform

*Next.js, Node.js, Machine Learning*

- Built a system for metro scheduling and operational optimization.
- Implemented real-time monitoring and predictive insights.
- Designed scalable architecture for data-driven decisions.
- [Live](#) [GitHub](#)

### Aayiram – Expense Tracking App (Play Store)

*Flutter, Firebase*

- Built SMS-based automatic expense tracking system.

- Designed transaction parsing and categorization engine.
- Developed under **RedGoldCrew**.

### **Tripoo – Mobile Application (Play Store)**

*Flutter, Firebase*

- Developed and deployed production-ready mobile application.
- Focused on performance, reliability, and UI/UX.
- Developed under **RedGoldCrew**.

### **CGPA Calculator – Web Application**

*Next.js, TypeScript*

- Built curriculum-based CGPA calculator.
- Automated accurate SGPA and CGPA computation.
- [Live](#) [GitHub](#)

## **Experience & Internship**

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### **AI Model Developer – UYIR Road Safety Project**

Feb 2025 – Oct 2025

- Developed AI models for real-time accident detection.
- Built full pipeline from detection to alert systems.
- Integrated models with mobile and dashboard applications.

### **Founder – RedGoldCrew**

Oct 2025 – Present

- Founded and led development of mobile applications and software products.
- Built and deployed apps including Aayiram and Tripoo.
- Managed development, architecture, and product iterations.

### **Executive Member – Aeromodelling Club**

Oct 2024 – Feb 2025

- Worked on drone-based engineering projects.
- Collaborated on technical builds and experimentation.

## **Achievements & Hackathons**

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- Best Performing Team – UYIR Road Safety Hackathon 2025 (10,000 prize; solution piloted by Tamil Nadu Government)
- HackX CTF 2025 – 2nd Place (Reverse Engineering, Binary Exploitation, Cryptography)
- Top 10 – Cipher Chase CTF, Synergy '25, IIIT Bangalore
- Top 33 (Finals) – Yukthi CTF 2.0, Tamil Nadu Police Cyber Talent Hunt
- Python Coding Contest Winner – 2024
- Selected for Innovation & Build Program – Internship Shortlisting Round
- Participant – Smart India Hackathon (SIH) 2025

## **Certifications**

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- Certified Network Security Practitioner (CNSP) – SecOps Group
- Certified AppSec Practitioner (CAP) – SecOps Group
- HTB Certified Penetration Testing Specialist (CPTS) – In Progress (Hack The Box)
- Python Programming Certificate – HackerRank

## **Additional Information**

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Languages: English, Tamil

Soft Skills: Problem Solving, Ownership, Team Collaboration

LeetCode: Solved 200+ problems