

### Bachelor of Engineering, Computer Science and

#### Engineering

M Kumarasamy College of Engineering, CGPA : 8.4/10.00

## EXPERIENCE

### YaazhTech Solutions, Software Development Intern

July 2025

Salem, India

- Engineered and deployed a full-stack Banking Account Management System enabling secure account creation, balance tracking, and transaction management using HTML, Tailwind CSS, JavaScript, Spring Boot, and DynamoDB.
- Designed and developed RESTful APIs with Spring Boot to handle account operations (create, update, delete, transfer), ensuring scalable backend architecture.
- Integrated DynamoDB for high-performance NoSQL data storage, optimizing query efficiency and reducing response latency.
- Implemented client-side validation and responsive UI using Tailwind CSS and JavaScript, enhancing user experience and accessibility.
- Applied OOP principles and layered architecture (Controller–Service–Repository) to maintain clean, modular, and testable code.
- Conducted API testing and debugging to ensure data consistency, security, and error handling across the application.
- Collaborated in an Agile team environment, participated in code reviews, and contributed to deployment-ready production code.

## PROJECTS

### DigiDineX

Smart Canteen Automation System

- DigiDineX is a smart mobile-based canteen automation platform designed to streamline food ordering, reduce overcrowding, and enhance user experience in college campuses. Users (students, staff, and guests) log in through role-based authentication, view real-time menu updates, pre-book meals with online payment, and collect orders using secure QR-based pickup. The system implements year-wise slot allocation to efficiently manage peak-hour crowd flow and ensure organized dining.
- The system integrates a Mood-Based Food Recommendation Engine that suggests food items based on user mood inputs (e.g., happy, stressed, tired, energetic). Using basic ML/NLP-based sentiment mapping, the platform personalizes menu suggestions to improve satisfaction and engagement. QR-secured order verification prevents misuse, while the feedback-based reward mechanism increases user interaction and retention. Contributed to recommendation logic design, system architecture, and full-stack integration.
- Technologies:** HTML, CSS, React.js, Spring Boot, MongoDB/MySQL, Python (Flask for ML module), QR Code API, Payment Gateway Integration, Git, GitHub.

### CrimeGuard AI

Intelligent Cybercrime Detection System

- CyberGuard is an AI-based multi-class classification platform that analyzes user-submitted text descriptions (and optionally audio/video transcripts) to identify the type of cybercrime (e.g., phishing, identity theft, financial fraud, cyberbullying). The system assists citizens in filing accurate complaints on the National Cyber Crime Reporting Portal (NCRP) by automatically categorizing reports in real time.
- The system uses NLP techniques such as text preprocessing, tokenization, TF-IDF/word embeddings, and supervised machine learning models to classify complaints into predefined fraud categories. It reduces manual misclassification, improves reporting accuracy, and speeds up complaint processing. Contributed to model training, dataset preprocessing, multi-class classification pipeline, and backend integration.
- Technologies:** Python, NLP (NLTK / spaCy), Scikit-learn / TensorFlow, Flask, MongoDB/MySQL, HTML, CSS, React.js, Git, GitHub.

### Skill2Earn

A Smart learning to Earning platform for Freelancers

- Skill2Earn is a web-based platform designed to help users enhance their skills through assessments, challenges, and performance-based tasks while earning rewards based on their proficiency. The system evaluates user performance and provides structured learning pathways to improve employability and practical knowledge.
- The platform includes role-based access (admin & users), skill assessments, leaderboard tracking, performance analytics, and reward mechanisms. It ensures fair evaluation using automated scoring logic and real-time result processing. Contributed to system architecture design, database schema development, backend logic implementation, and frontend integration.
- Technologies:** HTML, CSS, JavaScript/React.js, Spring Boot/Flask, MySQL/MongoDB, Git, GitHub.

### Agro-Bot

Touch Driven Autonomous Farming

- Agro-Bot is a semi-autonomous agricultural robot that enables farmers to control field operations through a touch-based augmented reality (AR) mobile interface. The system allows users to draw a navigation path directly on a live field view, which is converted into real-world motion commands for autonomous robot execution, eliminating the need for GPS or complex programming.
- The platform integrates AR-based path planning, wireless communication, rule-based obstacle detection, and mechanical task modules such as inter-row weeding, spraying, and seed dispensing. The robot follows the user-defined trajectory autonomously while ensuring operational safety through real-time monitoring and fail-safe mechanisms.
- Technologies:** Arduino/ESP32/Raspberry Pi, DC Motors & Motor Driver (L298N), Ultrasonic Sensor, Unity AR/ARCore, Android/Flutter, C/C++/Python, Wi-Fi/Bluetooth Communication.

## TECHNICAL SKILLS

Programming Languages	Python, C, Java, SQL, JavaScript
Development	NodeJS, ExpressJS, HTML, Tailwind CSS, JSP, Servlets, Spring Boot, RESTful API.
Databases, tools and CLI	MySQL, Dynamodb, Web Scraping, MongoDB, Git and Github
CS Fundamentals	DSA, OS, DBMS, Object-Oriented Programming, Software Testing, Computer networks, Cryptography Network Security, Compiler Design, Theory of Computation

## CERTIFICATIONS

2026	Infosys AWS Cloud Innovator Program – Cloud Architecture & AWS Fundamentals(Ongoing)
2025	Software Development Internship - Successfully Completed at Yaazhtech Software Solutions.
2025	NPTEL Certification – Industrial Internet of Things (IIoT 4.0)
2025	JLPT N5 – Japanese Language Proficiency Test Certified
2024	Infosys Pragati – Path to Future (Cohort 2) Program Participant