Kavin Balaji S

+91-7397792544 • kavinbalaji@gmail.com • kavinbalaji2005 • kavinbalaji2005 • kavinbalaji.social

Education

Bachelor of Technology in Computer and Communication Engineering *2023-2027*

Amrita Vishwa Vidyapeetham University, Coimbatore CGPA: 7.07

– **Relevant Coursework:** Data Structures & Algorithms, Operating Systems, Machine Learning, DBMS, Embedded Systems, IoT and Cloud Computing, Computer Networks

Experience

IoT Engineer *July 2024 - Present*

Intel IoT Club, Amrita Vishwa Vidyapeetham University

– Conducted hands-on workshops and technical sessions, introducing members to IoT concepts and brainstorming ideas.

Technical Skills

Programming Languages	C, Python, JavaScript, HTML
Frameworks & Libraries	React.js, Node.js, Express.js, TensorFlow, Scikit-Learn, Librosa, Pandas, NumPy
Tools & IDEs	VS Code, Keil uVision, Arduino IDE, LogiSim
Cloud & Databases	AWS, MySQL, MongoDB
Embedded & IoT	Arduino, ESP32, MQTT, Node-RED, Blynk
Version Control	Git, GitHub
Interests	Web Development, IoT Systems, Cloud Computing

Projects

StartSmart – AI Startup Evaluator | *React.js, Node.js, Express.js, MongoDB, Gemini API* GitHub • Demo

– Developed an AI-driven platform that evaluates startup viability by generating SWOT analyses, innovation scores, and feasibility metrics.
– Integrated Google's Gemini API to provide actionable feedback, competitor comparisons, and tailored investor matching recommendations.

Smart Appliance Manager | *C++, MQTT, Node-RED, Blynk* GitHub

– An IoT-based home automation system to automatically control and monitor appliances in real time.
– Built with ESP32 microcontroller for automatic temperature and ambient light based appliance control and monitoring.
– Implemented MQTT protocol communication with Node-RED and Blynk dashboards for remote monitoring and real-time data visualization.

Music Genre Classification | *Python, Librosa, scikit-learn, TensorFlow* GitHub

– Built a music genre classifier extracting features (MFCCs, chroma, spectral contrast) using Librosa.
– Optimized accuracy by training SVM, Random Forest, and CNN models.
– Achieved high prediction performance validated by confusion matrices and evaluation metrics.

Library Management System | *Python, Tkinter, Pandas, OpenPyXL* GitHub

– An application made using Python for managing all facets of library operations.
– Designed and implemented book cataloging, user registration, borrowing, returns with overdue fee calculation, and reservation workflows.
– Persisted data to Excel files and logged all transactions.
– Developed an intuitive multi-frame GUI for both administrator and user modes.

Certifications

AWS Certified Cloud Practitioner CLF-C02 *Verify*