

Girisudhan V

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SUMMARY

Electronics and Communication Engineering student with a strong dual focus on Embedded Systems and Full-Stack Web Development. Proven experience in building end-to-end solutions that integrate hardware (ESP32, Sensors) with scalable software architectures (React, Node.js, Firebase). Passionate about developing reliable IoT systems and responsive web applications to solve real-world problems.

EDUCATION

Amrita Vishwa Vidyapeetham, B.Tech in Electronics & Communication Engineering Jun 2024 – Jun 2028
Coimbatore, TN

- **Relevant Coursework:** Embedded Systems, Analog Electronics, Digital Electronics, Signal Processing, VLSI

Bharani Park Matric Hr Sec School, 12th Grade Jun 2023 – Mar 2024
Karur, TN

EXPERIENCE

Web Development Intern Dec 2025 – Present
ShadowFox Remote

- Developed a "Campus Trade Platform," a peer-to-peer marketplace for college students to buy and sell resources.
- Implemented a real-time notification system and automated "Buy Now" feature via WhatsApp integration.
- Designed the frontend interface for listing creation, enabling users to upload images and manage product status.

IoT Engineer Nov 2025 – Present
Intel IoT Club Tamil Nadu, India

- **Anokha Techfair Attendance System:** Engineered a real-time QR-based attendance solution using ESP32 and Firebase RTDB. Built a secure React/Vite dashboard with PIN authentication and data analytics.
- **Smart Bicycle Locker:** Built the complete authentication module and wallet-based auto-debit payments for a GPS-enabled bike rental system (MERN Stack). Collaborated with hardware teams to synchronize app commands.
- **QR Door Entry System:** Built a verification system using ESP32-CAM, Flask, and Google Sheets with a responsive dark-mode dashboard for real-time monitoring.

IoT Trainee Dec 2024 – Nov 2025
Intel IoT Club Tamil Nadu, India

- **Mini Mapper Project:** Developed the frontend dashboard for a low-power navigation system tailored for motorcyclists. Integrated Google Maps API to fetch routing data and visualized navigation metrics.

PROJECTS

AI Website Navigation Assistant | *Chrome Ext, Node.js, Python, Gemini API* Jan 2026 – Present

- Built a dual-mode browser extension using Google Gemini (Cloud) and SentenceTransformer (Local) to simplify complex website navigation. Engineered a privacy-focused "Firewall Shield" to block third-party trackers.

AIoT Air Quality Forecasting System | *ESP32, ML, Firebase, Google Sheets* Aug 2025 – Sep 2025

- Deployed an on-board ML model for real-time air quality analysis and hourly forecasting using ESP32 and MQ5 sensors. Logged data directly to Firebase for visualization on a heatmap dashboard.

CampusTrade – College Marketplace Platform | *Node.js, Express.js, React.js* Jan 2026 – Feb 2026

- Developed a secure marketplace exclusively for Amrita students to buy and sell campus essentials. Implemented college email verification, JWT-based authentication, real-time notifications using WebSockets, and a review system to enhance trust. Built a responsive frontend using Vanilla JavaScript and deployed on Vercel (frontend) and Render (backend), with MongoDB Atlas for scalable cloud data storage.

SKILLS

- **Languages:** C, C++, Python, JavaScript, ARM Assembly, SQL, HTML/CSS
- **Frameworks:** React.js, Next.js, Node.js, Flask, Express.js, React Native, Tailwind CSS, Arduino
- **Libraries:** Scikit-learn, Pandas, NumPy, Seaborn, Recharts, GSAP, SentenceTransformer, TinyGPS++
- **Tools & Hardware:** Git, Firebase, VS Code, Keil uVision, LTspice, Gemini API, ESP32, ESP32-CAM, IoT Sensors

ACHIEVEMENTS

- **Winner, AIoT Hackathon** (Intel IoT Club) – Recognized for "Air Quality Forecasting" project.
- **2nd Runner Up, Hacktide Hackathon** (2026) – Secured 3rd place for "AI Website Navigation" project.
- **Golden Star Award** (2022-2023) – Awarded for consecutive selection to State Level National Children's Science Congress.

CERTIFICATIONS

Machine Learning Onramp (MathWorks) | Intro to Flutter (Simplilearn) | Intro to IoT (Cisco) | Simulink Onramp (MathWorks) | JavaScript (Simplilearn)