Aditya Raj Kar

Vellore, Tamil Nadu 632014

github.com/TRITUSLegend

Summary

Aspiring software developer proficient in C, C++, HTML, CSS, and JavaScript. Committed to continuous learning and improving expertise in Data Structures and Algorithms, with a strong focus on enhancing problem-solving skills and writing efficient, scalable code.

Education

Vellore Institute of Technology, Vellore, Tamil Nadu

Bachelor of Technology in Computer Science and Technology (IoT) | Year of Completion: 2027

CGPA: 8.41/10

Amity International School, New Delhi

XII - CBSE Board | April 2021 - March 2023

Score: 90%

Narayana E-Techno School, New Delhi X - CBSE Board | April 2017 - March 2021

Score: 94%

Relevant Coursework

Data Structures and Algorithm, Object-oriented programming, Web Development

Experience

IoT Intern – Perennial Systems Pvt. Ltd.

June 2025 - July 2025

Hybrid

- Collaborating with the engineering team on practical applications in the Internet of Things (IoT) domain.
- Working with microcontrollers such as ESP32/ESP8266/Arduino for prototyping and control systems.
- Integrating sensors and collecting real-time data for monitoring and automation use cases.
- Developing cloud-based dashboards for data logging, visualization, and alert systems.
- Documenting technical work, learnings, and implementation processes for project transparency.

Projects

Bus Credit System

HTML, CSS, JavaScript, MySQL

- **Problem:** Based on our observations and student feedback, we identified inefficiencies in the shuttle service transaction system, especially during peak hours (class changes, lab sessions), resulting in long delays and overcrowding.
- Solution: Developed a web application that uses student ID cards linked to an online credit wallet for transactions. Users can add funds to convert them into credits. When boarding, the fare is debited instantly from their wallet. The backend settles the equivalent amount with the shuttle service, encouraging students to carry their ID cards and significantly reducing transaction time.

Temperature and Humidity Sensor – Real-Time Data Monitoring

ESP32, DHT22, ThingSpeak

- Built a scalable Wokwi-based IoT simulation using the ESP32 board connected with a DHT22 sensor to measure temperature and humidity.
- Used ThingSpeak cloud dashboard for real-time data logging, visualization, and alerts when sensor values exceeded predefined safety thresholds.

Technical Skills

Programming Languages: C, C++, HTML, CSS, JavaScript Development Tools: Git, GitHub, VS Code, Netlify, Vercel

Certifications

- Placement Preparation using DSA with C++ by DevTown
- Young Professional Career Development Course by TCS iON