

# Adithya Ram S

ECE Undergraduate | CGPA: 8.29

Bachelor of Technology

Indian Institute of Information Technology Sri City

+91-6381426353

adithya395672@gmail.com

Adk-157

in/adithya-ram-s-514a6528a

## EDUCATION

- **Bachelor of Technology in Electronics and Communication Engineering** 2023-27  
*Indian Institute of Information Technology Sri City* CGPA: 8.29
- **Higher Secondary School (Class 12)** 2021-23  
*Narayana Junior College, Chennai* Score: 93%
- **Senior Secondary School (Class 10)** 2019-21  
*Narayana Olympiad School, Chennai* Score: 90%

## EXPERIENCE

- **Software Intern - Hardware Platform Solutions** May - July 2025  
*Built test automation dashboard for hardware validation* Celestica India Pvt. Ltd., Chennai
  - Developed API-based rerun system with SSH integration for automated testing workflows
  - Improved database interaction and resolved qTest UI synchronization issues
  - Enhanced hardware validation efficiency through comprehensive dashboard implementation
- **Research Intern - Honours Project** July - August 2025  
*IoT-based Smart Mobility Solution Development* IIIT Sri City
  - Developed IoT-enabled e-cycle system with GPS tracking and IMU sensor integration
  - Implemented real-time data visualization dashboard using Firebase and Leaflet.js
  - Integrated multi-sensor data fusion for enhanced vehicle monitoring and safety applications

## PERSONAL PROJECTS & RESEARCH

- **Design of CMOS Pulse Shaping Circuits for Qubit Control** Aug 2025 - Present  
*VLSI research on superconducting qubit controllers and DRAG pulse shaping*
  - Studying state-of-the-art CMOS controllers for superconducting qubits (IEEE QIS review, 2023)
  - Exploring simplified Gaussian pulse generator block as foundation for DRAG pulse shaping
  - Simulating pulse waveforms and spectral leakage reduction in MATLAB/Python
- **SAFE-RHD 2.0: Road Hazard Detection Framework** Aug 2025 - Present  
*Ongoing research to reproduce and enhance edge-based road safety systems*
  - Reproducing SAFE-RHD framework with real-world datasets for road anomaly detection
  - Implementing multi-sensor fusion using Extended Kalman Filter (EKF) for enhanced accuracy
  - Developing lightweight machine learning models for edge deployment on two-wheeler platforms
- **Smart Street Light using LoRa Communication** Oct - Dec 2024  
*AC dimmer controlled street lighting system with remote monitoring capabilities*
  - Developed LoRa communication protocol for server-to-streetlight data transmission
  - Implemented AC dimmer circuit for intelligent brightness control based on ambient conditions
  - Technology Used: LoRa modules, AC dimmer circuits, Arduino, C++ embedded programming
- **Wi-Fi Jammer & Repeater System** May - June 2024  
*Dual-purpose wireless network management system using ESP8266 microcontroller*
  - Successfully extended Wi-Fi coverage range through repeater functionality implementation
  - Developed Wi-Fi network jamming capabilities for security testing purposes
  - Technology Used: ESP8266, C++, Wireless protocols, Network security techniques

## TECHNICAL SKILLS AND INTERESTS

**Programming Languages:** C, C++, Python, Embedded C, Verilog HDL, MATLAB

**Microcontrollers & Platforms:** ESP32, ESP8266, 8051, PIC16F877A, Arduino

**Development Tools:** Arduino IDE, Firebase, Leaflet.js, Git, GitHub, MATLAB, Python

**Communication Protocols:** LoRa, Wi-Fi, V2V Communication, IoT Protocols

**Hardware Skills:** Circuit Design, PCB Design, VLSI, Embedded Systems, AC Dimmer Circuits

**Relevant Coursework:** Digital Logic Design, Embedded Systems, Control Systems, Signals & Systems, Circuit Network Analysis, Data Structures & Algorithms

**Areas of Interest:** VLSI Design, Quantum Computing, IoT Systems, Embedded Programming, Smart Mobility, Pulse Shaping Circuits

**Soft Skills:** Team Leadership, Project Management, Problem Solving, Technical Documentation

POSITIONS OF RESPONSIBILITY

- Club Lead NexSync Smart Mobility Club - IIIT Sri City

Aug 2025 - Present

– Leading smart mobility research initiatives and vehicle-to-vehicle communication projects

– Managing club activities and coordinating technical projects in intelligent transportation systems

– Supervising team members in developing innovative solutions for smart transportation challenges
- Co-Lead - Marketing Team IIIT Sri City - Institute Level Events

Sep 2024 - Sep 2025

– Led marketing initiatives for all institute-level events and promotional activities

– Managed social media presence and digital marketing campaigns for increased engagement

– Coordinated team of marketing volunteers and supervised event promotion strategies

CERTIFICATIONS & ACHIEVEMENTS

- Verilog HDL: VLSI Hardware Design Comprehensive Masterclass

April 2025

Udemy — Certificate No.: UC-be61c907-8e0f-484b-9eb8-6927c2eae458
- IoT and Autonomous Systems Program

May 2025

IIIT Sri City — IEEE ITSS Certification (IoT & Wireless Communication, Intelligent & Autonomous Systems, Digital Twin Applications)
- 7 Days Internship on IoT with ESP32

March 2024

COGTIS Technologies Pvt. Ltd. — Certificate No.: 17499
- Marketing Team Co-Lead Recognition

Academic Year 2024-25

IIIT Sri City — Certificate of Appreciation (Ref: IIITS/AY2425/Certificate/Marketing Team/2)