

EDUCATION

SRM INSTITUTE OF SCIENCE AND TECHNOLOGY

B.TECH, ELECTRONICS AND COMPUTER ENGINEERING

2023 -- Present | Kattankulathur
CGPA: 9.72 / 10

ALWIN MEMORIAL PUBLIC SCHOOL

SENIOR SECONDARY (CLASS XII)
2023 | Selaiyur
Percentage: 85.2%

ALWIN INTERNATIONAL PUBLIC SCHOOL

SECONDARY (CLASS X)
2020 | Padappai
Percentage: 88%

LINKS

GitHub: balaji-29-s
LinkedIn: balaji-s
GeeksforGeeks: kingbala9bqy
Google Dev: Balaji4254

TECHNICAL SKILLS

Languages: C++, Python, C, JavaScript
Tools/Platforms: ANSYS Icepak, LabVIEW, Arduino, KiCad, EasyEDA
Concepts: Machine Learning, Deep Learning, Web Development, Data Structures & Algorithms

CERTIFICATIONS

IBM Software Development (Coursera)
Python Developer, ML Bootcamp, C++ Programming (Udemy)
DSA (GeeksforGeeks), Verilog

INTERNSHIPS

NIT Puducherry (Jun 2025 - Present) - worked on SST forecasting using Fourier Analysis Network and Multi-Head Attention (DL).
AICTE Embedded Systems (10 weeks, 2024) - Hands-on training in microcontrollers, circuit design, Arduino programming.
AICTE Green AI Internship (4 weeks, 2024) - Built AI-based tools for environmental sustainability and monitoring.

PROJECTS

SST Forecasting Model (DL) - Regional SST prediction using Fourier + MHA; R^2 score: 0.92.
Cold Mail Generator (LLaMA2) - Automated personalized email generation using prompt engineering + user profiling.
Advanced RAG System - Built RAG pipeline using LLMs + vector DB for real-time, accurate responses.
AI Interview Mocker - Simulates interviews with voice input and AI-based feedback generation.
Disease Prediction (ML) - ML-based model for symptom-based disease forecasting.
Smart Agriculture Monitoring (IoT+ML) - Real-time crop monitoring with sensors + ML-based yield optimization.
Home Automation Assistant (ESP32) - Voice-controlled home automation using ESP32 and relay modules.
Stock Trading Simulator (C++) - Analyzed and predicted stock trends using basic forecasting models.
Hospital Data Manager (Python) - Patient record and appointment system with data security.
Logic Gate-Based Lock - Built a secure authentication system using NOR/XOR gates.

WORKSHOPS ATTENDED

- Generative AI (5 Days)
- AI and Green Skills (5 Days)
- Data Science with Python - IISc Bangalore (2 Days)
- PCB Design Workshop
- Docker and Kubernetes
- Autonomous Robotics - IIT Madras

ACHIEVEMENTS

- Ranked 1st in University (3rd Semester)
- Perfect 10 SGPA in 3rd Semester
- 4 Online Course Completion Badges
- Participant in Google Hackathon