# Arun Karthick N

Madurai, Tamil Nadu | arunkarthickn27@gmail.com | +91 7200401122

linkedin.com/in/arun-karthick-n | arun-karthick-n.github.io/Portfolio | github.com/Arun-Karthick-N

### Education

### K.L.N. College of Engineering

Oct 2021 - Apr 2025

• BE Electronics and Communication (Honours) with CGPA: 8.41/10

### **AKNU S. Sundar Matric Higher Secondary School**

Jun 2020 - May 2021

• HSC in Computer Science - Percentage: 89.78

### **AKNU S. Sundar Matric Higher Secondary School**

Jun 2018 - Mar 2019

• SSLC – Percentage: 88.60

### **Skills**

Languages & Web Technologies: C, C++, Python, Java, SQL, HTML, CSS

Developer Tools: VS Code, Android Studio, MySQL, AWS, Google Colab, Git, GitHub, Supabase, Hugging Face

**Operating Systems:** Linux, Windows

SD Concepts: Object-Oriented Programming, Data Structures and Algorithms, Agile-Scrum

### **Professional Experience**

Project Intern, K.L.N Innovation & Research Park – Sivagangai, Tamil Nadu

Mar - Dec 2023

### Laser Transmitter & Receiver Signal Coordination System for Land Leveling Unit

• Engineered a Raspberry Pi–based system in MicroPython for real-time elevation profiling with <2 cm accuracy, boosting land leveling efficiency for farmers by 25%. Optimized sensor networks and IoT data pipelines, enhancing the precision and performance of the embedded system.

## **Projects**

### Personal Portfolio Website

Aug 2025

• Designed and deployed a fully responsive portfolio website featuring a clean, modern UI and intuitive navigation. website achieved a Google PageSpeed score of 99/100, demonstrating performance optimization. Link: arun-karthick-n.github.io/Portfolio

### SmartAgroBiz: ML-Powered Farming and E-Commerce Solution

May 2025

 Built a cross-platform e-commerce mobile app (Flutter + Supabase) that supported real-time product listings and order management for 50+ simulated users, and implemented an ML crop recommendation model achieving 89% prediction accuracy.

#### **IoT Enabled Air Quality Monitoring System**

May 2024

• Built an IoT-enabled air quality monitoring system to track 150+ pollutants in real time, deployed a dashboard and call alerts that improved hazard detection by 40%.

### **Smart Energy Management System Using IoT**

Feb 2024

• Developed a real-time IoT-based energy management system using Raspberry Pi 3, reducing energy consumption by 15% and facilitating 100% remote monitoring across 5+ household devices.

### **Automatic Plant Irrigation System**

Mar 2022

• Engineered an Arduino-based irrigation system that reduced water use by 20-30% while maintaining optimal soil moisture, improving crop health for 10+ test plants.

### Certifications

- C for Everyone: Programming Fundamentals (University of California, Coursera)
- Python (Spoken Tutorial, IIT Bombay)
- TCS iON Career Edge Young Professional (TCS iON)
- Cybersecurity Essentials (ICT Academy)
- Introduction to Industry 4.0 and Industrial Internet of Things (NPTEL)