

Abinash Vijayakumar

Profile

I am a versatile developer with a keen interest in new tech. Experienced leader with strong background in guiding teams, managing complex projects, and achieving strategic objectives. Excels in developing efficient processes, ensuring high standards, and aligning efforts with organizational goals. Known for collaborative approach and commitment to excellence.

Education

Bachelor of Engineering: Electronics Coimbatore Institute of Engineering And Technology, Coimbatore, India Electronics And Communications Engineering, 8.6 GPA/CGPA *	- 2026
Higher Education: Biomaths Government Boys Higher Secondary School, Pudukottai, India Final Grade: 81.5%	- 2022
X-Std Adm matric and higher secondary school,pudukkottai,india Final Grade : 98.2	- 2020

Work Experience/projects

Designed and Implement Disaster management and SoS System - Coimbatore

- Created an autonomous weather station capable of real-time weather monitoring and prediction.
- Utilized Google Firebase for mobile integration and data storage.
- Implemented machine learning models for forecasting weather patterns.
- Designed and developed a portable, IoT-based solution leveraging AI and real-time datasets to enhance user accessibility and decision-making.

Designed and Implement Soil Health monitor System - Coimbatore

- Built a portable IoT device using **ESP32** microcontroller integrated with soil sensors (pH, moisture, nutrient levels) for real-time data acquisition and wireless communication.
- Developed a Flutter-based mobile app connected via Firebase Realtime Database, enabling cloud storage, live monitoring, and user-friendly visualization of soil parameters.
- Implemented AI/ML models with TensorFlow and Python to analyze soil data, detect nutrient deficiencies, and recommend suitable crops, improving decision-making in smart agriculture.

Developing the AI/ML marksheet Scanning System - Coimbatore

- Powered software system for automated college marksheet entry and database registration.
- Engineered AI-driven optical character recognition (**OCR**) models for precise marks detection and integrated the functionality to directly update the database.
- Enhanced efficiency through seamless automation, minimizing manual

Courses

- NPTEL** – Basic in Semiconductor
- Maven** – Verilog and HDL
- Kutty Electronic** – PCB Designing
- MATLAB/Simulation workshops

Personal details

Gender : Male
Nationality : Indian
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linkedin.com/in/abinash-vijayakumar-253401240
GitHub Id :
<https://github.com/Abinashvijayakumar>

Skills

- VLSI & HDL Languages
(Xilinx Vivada)
- Digital & Analog Circuit Design
- PCB Design(Eagle,KiCad)
- Embedded Systems
(Arduino,ESP 32)
- Hardware Troubleshooting & Testing
- Circuit Simulation Tools
(Proteus,Ltspice,Multisim)
- IoT Hardware Integration
- Signal Processing Basics
- Basic of plc

Hobbies

- Circuit designing and simulation
- Electronic mini projects
- Learning new skill
- Reading tech and industrial articles