

AJITH SAKTHIVEL

SOFTWARE ENGINEER

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OBJECTIVE

Full-Stack Developer with experience in building and maintaining applications using Python, HTML, CSS, and JavaScript. Skilled in debugging, testing, and optimizing code, with knowledge of database management (Oracle, SQL). Familiar with IoT and embedded systems, working with microcontrollers (nRF52, RFID) and integrating hardware with software solutions. Proficient in Python libraries (NumPy, Pandas) for data analysis and automation, and currently exploring TinyML to run AI bots and machine learning models on ultra-low power (1mW) devices.

Education

2021-2024

Varuvan Vadivelan Institute of
Technology, Dharmapuri.

B.E *Computer Science
Engineering*

8.03 CGPA

Key skills

Programing language

- ✓ **Python**
- Good in Data types and Operations.
- Also have knowledge in Functions.
- Worked on Control Statement.
- Good in Built-in-Function.
- Knowledge on Methods and Constructors.
- Worked on topics like OOPS.
- Knowledge on Exception handling,File-handling.

✓ **OOPs**

✓ **HTML**

✓ **CSS**

✓ **JavaScript**

Frameworks:

- Oracle SQL
- SQLite3
- Django

COURSE & CERTIFICATE

- Full Stack Development with Python – JSpiders, Bangalore
- National Conference (NCCIS2K24) – Presented research work

PROJECTS

- **Student Management System**
Built a web-based application to manage student records, attendance, and course details using **Django, Python, and SQLite3**. The system implements CRUD operations, user authentication, and role-based access control (admin, teacher, student) to ensure secure and efficient data management.
- **Automatic Street Light Fault Detection and Location Tracking**
Developed an IoT-based system for automatic detection of streetlight faults, enabling real-time monitoring and precise fault location tracking. The system integrates sensors and GPS modules to detect malfunctions and transmit fault location data to a centralized management platform. This solution improved operational efficiency by reducing manual inspections and facilitating faster maintenance response.

EXPERIENCE

- **Project Associate**
At the **Department of Electronic Systems Engineering (DESE), Indian Institute of Science (IISc), Bengaluru**, I began as an **Intern (Feb 2025 – May 2025)**, where I developed and tested embedded AI/ML models for IoT applications. During this period, I gained hands-on experience in sensor data analysis, microcontroller programming, and system optimization. Following the successful completion of my internship certification in AI/ML and Embedded Systems, I transitioned into the role of **Project Associate (Present)**. In this capacity, I am contributing to the design and development of AI/ML and embedded system solutions for real-world applications, with a particular focus on **TinyML, low-power devices, and IoT integration**.

