

SAI CHARAN KALIDINDI

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Tanuku, west godavari
Andhra Pradesh, 534222

Enthusiastic Electronics and Communication Engineering graduate with a solid foundation in Embedded Software Development and IoT technologies. Proficient in C, Python, and embedded systems, with hands-on experience in real-time software, multimedia technologies, and wireless communication protocols. Adept at working in Linux environments and familiar with SDLC processes. Eager to leverage my skills in a dynamic role, contributing to innovative mobile chipset and IoT projects.

SKILLS

- Good hands-on experience in writing code in C, C++.
- Ability to learn and effectively apply new technologies and tools.
- Familiarity and some experience in communication protocols like UART, I2C, SPI, CAN.
- Proven analytical and problem-solving skills
- Knowledge in Java full stack development.
- Understanding of wireless communications like Wi-Fi, BLE, LoRaWAN.
- Experience in troubleshooting and problem solving with coding, testing, and debugging.
- Good hands-on experience in working with ESP32, Arduino Microcontrollers.
- Hands-on experience in soldering the components.

EDUCATION

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|---|-----------|
| • Srkr engineering college - Bhimavaram, Andhra Pradesh | 2018-2022 |
| Bachelor of Engineering, Electronics and communications engineering | 7.1/10 |
| • Sasi junior college – Velivennu, Andhra Pradesh | 2016-2018 |
| Andhra Pradesh board of intermediate education | 8.5/10 |
| • Sasi EM school – Velivennu, Andhra Pradesh | 2015-2016 |
| Andhra Pradesh board of secondary school education | 9.5/10 |

INTERNSHIP & EXPERIENCE

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|-------------------|---|
| 12/2022 – 05/2023 | Java Full stack developer intern , KodNest Technologies – Bengaluru. <ul style="list-style-type: none">• Proficient in Java programming.• Hands on experience with front-end technologies like Html, css, javascript, angular js.• Acquires valuable insights into software development best practices |
| 02/2024-Present | Embedded software Engineer , Vandanam SmartTech Pvt Ltd-Kolhapur. <ul style="list-style-type: none">• Proficient in working with Embedded C, C++• Proficient in working with ESP32 Microcontroller, Arduino.• Good knowledge on Wireless communications like Wi-Fi, BLE, LoRa. |

PROJECTS

- **Single-Axis Solar Panel Automation System (R&D Project).**

Objective: Developed and implemented an automated single-axis solar panel tracking system using the ESP32 microcontroller and GPS module.

Key Contributions:

1. Integrated GPS data (latitude, longitude, date and time) into the Sun Position Algorithm(SPA) for precise solar tracking.
2. Designed and implemented real-time control logic to adjust the solar panel's angle for maximum energy efficiency.
3. Developed a Wi-Fi enabled application to remotely configure and monitor the solar panel's orientation and system settings.
4. Documented research findings and developed prototypes to improve solar panel automation reliability.

Technologies used : ESP32, GPS module,WiFi, Solar Position Algorithm (SPA), Embedded C, IoT systems.

- **IoT Automation Product Testing for Solar panel Tracking**

Description: Performed end-to-end testing for an IoT-based solar panel automation product developed by Micron Instruments using SPA algorithm.

Key Contributions:

1. Conducted manual testing of the automation product developed by Micron Instruments using SPA algorithm.
2. Validated the product's ability to manually set date,time and location using buttons provided on PCB.
3. Ensured the SPA algorithm's performance for precise solar panel positioning based on manually set location data.
4. Documented test cases,results, and feedback to enhance product reliability.

Technologies Used: SPA Algorithm, Embedded Systems, IoT, Manual Testing.

- **Universities Listing Web Application**

Objective: Developed a Single Page Application (SPA) that allows users to browse and filter universities based on country using AngularJS and an external University API.

Key Contributions:

1. Integrated the University API to fetch and display real-time university data based on the selected country.
2. Designed and implemented an interactive user interface using AngularJS for seamless navigation and filtering.
3. Developed a local backend using JSON-Server to simulate API responses and enable offline testing.

4. Configured a Node.js environment to manage API proxying and enhance application performance.

Technologies Used: JavaScript, AngularJS, HTML, CSS, JSON-Server, University API, Node.js.

GitHub: [Project Link](#)

CERTIFICATIONS

- C language offered by MCR web solutions
- Java full stack development and Manual testing offered by kodnest technologies,Bengaluru.

CURRICULAR ACTIVITIES

- Won price in the MARCH PAST competition conducted on event of independence day.
- Participated as volunteer NIPUNA offered by National level Technomanagement symposium of management skills.

PROFESSIONAL PROFILE

- LinkedIn profile : <https://www.linkedin.com/in/kalidindi-sai-charan-195513206>
- GitHub profile : <https://github.com/charan3215>