Rajiv Singh

✉ rajiv00016@gmail.com   📞 +91 89287 57072   📍 Navi Mumbai, Maharashtra

in rajiv-singh-38698a312

WORK EXPERIENCE

Intech Dosimeters Pvt. Ltd.

Intern   Dec 2024 - Jan 2025

- Established wireless communication between dosimeter and docking station using IRDA (Infrared Data Association) protocol.
- Designed, tested, and validated sensor PCBs for radiation dosimeters to ensure functionality.
- Developed and optimized custom embedded software to test, fine-tune, and enhance dosimeter performance.

BeamOptics LLP

Intern   Nov 2023 - Jan 2024

- Debugged and optimized liquid handling systems (LHS) by identifying hardware/software inefficiencies.
- Conducted PCB testing and validation to meet stringent design specifications.
- Integrated touchscreen display interfaces with Raspberry Pi for enhanced usability.
- Improved stepper motor performance through embedded control algorithms and hardware tuning.

EDUCATION

Vivekanand Education Society's Institute Of Technology (VESIT)

B.Tech in Electronics & Telecommunication Engineering   2021 - 2025

PROJECTS

Wireless Sensor Node   2023 - 2024

- Developed a low-power wireless sensor node using STM32 with solar + RF energy harvesting.
- Integrated accelerometer + gyroscope sensors, transmitting real-time data on OLED for IoT applications.

Smartphone-Based Fingerprint Door Lock   2022 - 2023

- Designed an IoT-enabled fingerprint lock using Arduino, Bluetooth, and Android app control.
- Implemented secure authentication system with encrypted data transfer.

Light Dependent Automatic Tracking System   2022

- Built a system using resistors, capacitors, LDRs, and comparator IC to track light intensity.
- Automated DC motor alignment to optimize solar tracking efficiency.

SKILLS

- **Embedded Systems:** STM32, Arduino, Raspberry Pi, IRDA, I2C, SPI, UART
- **Hardware:** PCB Design, Soldering, Circuit Design, Debugging, 3D Printing, Eagle,Tinkercad, Analog Electronics, Digital Electronics
- **Software:** Embedded C, Microcontrollers, MATLAB (basic), Troubleshooting, Stm32cubeide, LTspice

CERTIFICATE

Microcontroller Embedded C Programming: Absolute Beginners (Udemy)

Computer Architecture (NPTEL)

Engine Electronics and Management Systems (ARAI)