ROHAN KURNE

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ABOUT ME

Final-year Electronics Engineering student with strong skills in circuits, embedded systems,and IoT-based hardware-software integration. Passionate about solving real-world problems through electronics and aiming to grow as an innovative engineer.

EDUCATION

2022 - 2026 **B-tech in Electronics & Telecommunication Engineering**
Dr. Babasaheb Ambedkar Technological University, Lonere , Maharashtra

2020 - 2022 **Higher Secondary Certificate (HSC)**
Yashwantrao Chavan Institute of Science, Satara, Maharashtra [61.00%]

2019 - 2020 **Secondary School Certificate (SSC)**
Studied at Sou Devibai Narayandas Chhabada Highschool, Satara, Maharashtra [85.40%]

EXPERIENCE

July/2024 - Aug/2024 **Intern at Amplifier Electronics**
Embedded Systems (8051 & PIC Microcontrollers)

- Gained hands-on experience in 8051 and PIC microcontroller programming using embedded C.
- Worked on interfacing sensors, actuators, and peripheral devices (LCD, keypad, ADC, UART, etc.) with microcontrollers.
- Designed and tested embedded circuits and simulation models using Proteus and implemented code in Keil µVision IDE.

Jan/2024 - Feb/2024 **Intern at Esha Group of Industries**
Electric Vehicle Technology

- Acquired practical knowledge of electric vehicle (EV) powertrain components, including battery management systems (BMS), motor controllers, and charging systems.
- Gained exposure to EV simulation tools, wiring harness design, and safety protocols.

July/2023 - Aug/2023 **Intern at Aprton Technology**
PCB Designing & Manufacturing

- Learned the end-to-end process of PCB design and manufacturing, from schematic design to fabrication.
- Understood fabrication processes including etching, drilling, solder masking, and component placement.

June/2024 - Aug/2024 **Intern at IBM Skillsbuild Summer Internship Program**
Front-End Web Development

- Built and maintained responsive web interfaces using HTML, CSS, JavaScript, and modern frameworks.
- Added forms, buttons, and interactive elements for better user experience.

May/2025 - Present **Intern at Do It Infosystem, Satara**
Full Stack Java Developer

- Worked as a Java Full Stack Developer Intern, contributing to the development of responsive web applications using Java, Spring Boot (Backend), and front-end technologies like HTML, CSS, JavaScript, and React.
- Gained hands-on experience in building RESTful APIs, integrating databases (MySQL/PostgreSQL), implementing user authentication, and managing server-side business logic.
- Gained hands-on experience in Java development and software project management.

PROJECTS

Smart Library Access and Attendance with Biometric Verification and Alerts

- Designed a biometric library access system using fingerprint authentication integrated with Raspberry Pi Pico W.
- Implemented timetable-based attendance automation, marking presence only during scheduled library hours.
- Developed real-time alerts for authorities, notifying when access is attempted outside allotted hours.

IoT Based Smart Hospital Bed & Staff Monitoring System

- Developed an IoT-enabled hospital monitoring system with IR sensor–based bed detection and ESP8266 integration.
- Built a Java Full Stack web app (JSP, Servlets, JDBC, MySQL) with a responsive dashboard to display bed occupancy, staff availability, and oxygen status.
- Enabled real-time monitoring and alerts, improving hospital workflow efficiency and resource utilization.

Bi-Directional Visitor Counter Using IR Sensors and 8051 Microcontroller

- Designed a bi-directional visitor counter using IR sensors and the 8051 microcontroller to detect and count people entering and exiting a room.
- Programmed the 8051 in Embedded C to process sensor signals, apply simple debounce logic, and display the real-time visitor count on an LCD screen.
- Used the system for applications such as office attendance tracking, library occupancy monitoring, and automated visitor management, improving efficiency and reducing manual counting errors.

Hazardous Gas Detection System Using PIC Microcontroller

- Developed a hazardous gas detection system using gas sensors (like MQ-2) interfaced with a PIC microcontroller to continuously monitor air quality for harmful gases (e.g., LPG, CO, Smoke).
- Programmed the PIC microcontroller in Embedded C to read analog gas sensor values, compare them against predefined thresholds, and trigger visual (LED) and audible (buzzer) alarms when dangerous levels are detected.

SKILLS

- Leadership
- Time Management
- Adaptability to Change
- Problem Solving
- Teamwork
- Critical Thinking

LANGUAGES

- English
- Hindi
- Marathi