ROHITH DR

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OBJECTIVE

To secure a challenging position as an Electronics Engineer in a dynamic and innovative organization, where I can use my technical and analytical skills to work on exciting projects and continue learning in this field.

EXPERIENCE

Jr Research Fellow (R V college of engineering) Bat Conservation India Trust | [04-08-2025]

- Designed and implemented an IoT system based on Raspberry Pi with a client–server architecture, embedded firmware in C and Python, custom PCB design, functional prototypes, and successful field validation.
- Engineered and prototyped an ultrasonic microphone system capable of capturing bat echolocation signals from 15 kHz to beyond 180 kHz, followed by successful real-world field testing.

VSDSquadron Mini Internship Vlsi System Design | [19-01-2025]

- Designed a Shipment Tracking System in C, compiled it using PlatformIO with the RISC-V toolchain for hardware-level implementation insights.
- Engaged in a 4-week intensive research internship, focusing on the VSDSquadron Mini RISC-V development board, strengthening skills in embedded systems and processor design.

EDUCATION

Bachelor of Engineering, Electronics and Communication, GAT 2021-2025
specialization: Embedded systems & VLSI, CGPA: 9.81/10, First Rank Holder and Gold Medallist

SKILLS & ABILITIES

- **Programming Languages:** C, C++, Python, Java, HTML, JavaScript, Verilog, SystemVerilog, Embedded C, MATLAB.
- **Tools:** Arduino, RTOS, Keil µVision, Cadence Virtuoso, COMSOL Multiphysics, KiCad, ModelSim, Visual Studio Code, LTspice, MATLAB/Simulink, Vivado, Quartus Prime, PlatformIO. Icusverilog, GTKwave.
- **Soft Skills:** Communication, Teamwork, Leadership, Problem-Solving, Critical Thinking, Analytical Skills, Time Management, Adaptability, Decision-Making, Project Coordination.

PROJECTS

Bat Signal Detector:

- Designed and simulated (LTspice) an ultrasonic microphone for bat echolocation detection across a 15 kHz–180+ kHz frequency range. validated performance through laboratory and real-world field testing.
- Developed and evaluated multiple client–server architecture prototypes, optimizing system performance and noise reduction to enable remote, long-range, high-speed data transfer.
- Finalized a compact custom PCB design in KiCad, reducing microphone form factor by approximately 33%.

IoT-Based Water Monitoring:

- Integrated water flow sensors with an ESP32-based system for real-time monitoring of apartment water consumption, enabling precise usage tracking and automated billing solutions.
- Implemented a solar-recharged 5V power system and diaphragm pump control mechanism to enable efficient and sustainable water management.

CERTIFICATIONS

- Internship Certificate from Elewayte.
- NPTEL Certificate on Embedded System Design using ARM.
- Certificate of Merit in Circuit Designing and Simulation Hackathon (VSD), securing a Top 20 position.
- NPTEL Certificate on Hardware Modeling Using Verilog.