

ROHAN THAPA

Gangtok, IN

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An MCA student with a passion for designing creative web and hybrid apps, as well as integrating solutions and software for embedded systems and IoT devices. Have demonstrated the ability to create reusable code for future usage while optimizing performance. Also interested in cyber security, having knowledge of networking and numerous pen testing tools, and also in machine learning, having knowledge of several Python libraries and the R language. Enthusiastic about using technology to tackle real-world challenges.

EXPERIENCE

FIRMWARE DEVELOPER | INTERNSHIP

IIT Kharagpur | Kharagpur, WB

July 2022 – July 2023

Worked with embedded systems such as **Raspberry Pi**, **ESP32** and **Arduino** based devices implementing solutions, developing software and firmware for IoT devices. Effectively utilized **GPIO** interfaces and **BLE** communication, interacted with **Redis** database, used **C++**, **Python** programming languages to control and interact hardware components. During internship, also designed an API in Flask to monitor the status of a few internal sites.

TRAINEE (IOT)

AP MTTs SBC IIT KHARAGPUR | Kharagpur, WB

April 2022 – June 2022

This training program taught about IoT devices, particularly Arduino boards. Using Embedded C, programmed and worked with Arduino to communicate with various sensors and gadgets. As a final project, created a "Emergency Alert System Using Morse Code."

EDUCATION

MASTER OF COMPUTER APPLICATION

Sikkim University, Gangtok

September 2023 – Present

BACHELOR OF SCIENCE (HONS.) IN COMPUTER SCIENCE

Hijli College, Vidyasagar University, Kharagpur

September 2020 – August 2023

- Core Subjects: DSA, OS, DBMS, Networking, Computer Architecture
 - Languages: C, C++, Java, R, html, JavaScript
 - Technologies: Data Science, ML, AI, JDBC, JSP, OOP
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SKILLS

- Technical Skills: HTML, CSS, React JS, Express JS, Node JS, Flutter, MongoDB, Redis, Unix, IoT, Embedded Systems, Git & GitHub, Nmap, Burp Suite, Hashcat, John the Ripper, Maltego
- Programming Languages: Python, C, C++, JavaScript, R, Dart
- Soft Skills: Creative, Tech Enthusiastic, Problem Solving, Critical Thinking Teamwork, Multitasking, flexible and versatile

PROJECTS

- **WishWhiz:** “Where Wishes Meet Wizardry!” Unleash AI Magic for Effortless Summaries, Inspiring Content, and Chat with Genie! Made this project as the final year project in graduation. It's a MERN stack web app where user can use multiple AI features in one place. Have used OpenAI Api to do tasks.
Technologies used: **MongoDB, Express JS, React JS, Node JS**
 - **ToDo App:** While studying flutter, created a cross-platform ToDo application in which a user may add Tasks to accomplish, mark them as completed, or delete them.
Technology used: **Flutter**
 - **Emergency Alert System using Morse Code:** Created a morse code-based emergency alert system. As physical components, had utilized an Arduino board, a fire sensor, LEDs, and a buzzer in this project, which is coded in embedded C.
Technologies used: **Embedded C, Arduino Framework**
- PyGUI Calculator:** Made a simple calculator project for the desktop in Python using the tkinter package.
Technologies used: **Python**
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