JATIN

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Summary

Enthusiastic and dedicated pre-final year Computer Science and Engineering student with hands-on experience in software development, web development, and robotics projects. Proven track record in team leadership and project management, having led a successful publicity team for a major college fest and developed innovative projects such as a fully automated self-sustainable aquarium biotope and a to-and-fro bot. Adept at building functional and user-friendly websites, with a portfolio that includes a tribute page, landing page, and calculator, completed during an internship at Encryptix. Looking for a software engineering internship to further hone my technical skills and contribute to impactful projects.

Experience

Front-End Developer (Encryptix) **May 2024 – June 2024**

- During my internship at Encryptix, which spanned from May 15, 2024, to June 15, 2024, I worked remotely on a series of foundational web development tasks. My primary responsibilities included the creation of a **tribute page**, a **landing page**, and a simple **calculator** capable of performing basic arithmetic operations. These projects allowed me to deepen my understanding of front-end development technologies, specifically HTML, CSS, and JavaScript. The internship's basic tasks helped me solidify my web development skills and adapt to an online working environment, enhancing my ability to work independently and manage my time effectively.

Education

Indian Institute of Technology, Mandi **Oct 2022 – Present**
Bachelors of Technology in Computer Science engineering *Mandi, Himachal Pradesh*

Swami Uma Bharti Public School, Rewari **2021**
12th

Swami Uma Bharti Public School, Rewari **2019**
10th

Projects

Thread Art | *Python3* **Jan 2024**

· In the Thread Art project, i implemented an algorithm to convert input images into thread art by determining the optimal sequence of endpoints for thread placement. Utilizing Dijkstra's algorithm, efficiently computed the shortest path between endpoints, optimizing the thread art creation process. I used image processing techniques to analyze and transform images into a format suitable for thread art, programming the solution using [Python, OpenCV]. Additionally, I collaborated with team members to integrate various project components, ensuring seamless functionality and performance.

Fully Automated Self-Sustainable Aquarium Biotope | *Arduino IDE, C++,* **Feb 2024 – May 2024**

· In the fully automated self-sustainable aquarium biotope project, I developed an ecosystem within an aquarium, incorporating plants, lighting, a CO2 diffuser, a water filter, and a water heater. These components were connected to a mobile application, enabling control and monitoring via a local network. I utilized IoT technology to integrate the hardware components with the app, ensuring real-time data monitoring and efficient system management. By implementing automation algorithms, I maintained optimal conditions within the aquarium, promoting sustainability with minimal human intervention.

Line Follower Bot | *Arduino IDE, C++,* **Feb 2023 – June 2023**

· In the Line Follower Bot project, I designed and developed a robot capable of autonomously navigating along a designated path using infrared sensors and control algorithms. I programmed the control system using [C++, Arduino IDE] to process sensor inputs and adjust the robot's movements in real-time. The project involved building the robot hardware, including the chassis, motors, and sensor mounts, to ensure robust construction and optimal performance. Extensive testing and debugging were conducted to ensure reliable operation under various conditions, resulting in a well-functioning autonomous robot.

To and fro Bot | ***Arduino IDE, C++,*** **Feb 2023 – June 2023**

· In the To and Fro Bot project, I developed a robot capable of moving back and forth along a predefined path based on user input from a mobile application. I implemented precise movement control using [ultrasonic] to detect obstacles and endpoints, ensuring accurate navigation. Programming the control system with [C++, Arduino IDE], I managed the bot's movement. I built the robot hardware, including the chassis, motors, and sensor mounts, to ensure stability and reliable operation. Thorough testing and debugging were conducted to optimize the bot's performance, resulting in a robust system capable of executing predefined routes efficiently.

Technical Skills

Languages: HTML, CSS, ,JavaScript, Python3, C/C++, Latex
Developer Tools: VS Code, Google Colab, Overleaf

Relevant Coursework

· Data Structures & Algorithms · Data science I, II, III · Computing and Data Science

Extra Curricular

Team Lead in College Fest **March, 2024 –April, 2024**

· As a head of the Publicity Team for MIRAZ, I led a team of 30 members with three batchmates. We coordinated with departments, developed marketing campaigns, and organized events to boost awareness and participation. I managed the team's workflow and optimized publicity efforts.

Counsellor, GCS IIT Mandi **June, 2023 – Dec, 2023**

· As a Student Mentor, I provided counseling and mentoring to juniors and freshers, offering academic and personal support. I contributed to organizing induction events, helping to ensure new students received the guidance they needed to navigate their transition to college life. This experience enhanced my communication and leadership skills while fostering a supportive community among students.