YASH PRATAP SINGH

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Aspiring UI Developer with practical experience in designing user-friendly interfaces. Proficient in React, CSS, HTML, WordPress, and C++. Electronics and Communication Engineer skilled in microcontroller programming (Arduino), circuit design, and sensor integration. Committed to merging creativity in web development with innovative electronics solutions.

Technical Skills:

- **React.js:** Component Lifecycle, Hooks (useState, useEffect), State Management.
- **HTML5:** Semantic Elements, Forms and Validation, Multimedia Integration (Audio, Video).
- **CSS3:** Flexbox & Grid Layout, Animations & Transitions, Media Queries for Responsive Design.
- **JavaScript:** Asynchronous Programming (Fetch API), DOM manipulation.
- **Git:** Version Control (Branching, Merging), Collaboration (GitHub, GitLab), Conflict Resolution.
- **C++:** Object-Oriented Programming, Standard Template Library (STL).

Arduino:

- **Programming:** Writing sketches in C/C++ for microcontroller-based systems.
- **Hardware Integration:** Interfacing sensors, actuators, and communication modules.
- **Prototyping:** Developing rapid prototypes for IoT and electronics projects.
- **Microcontrollers:** Experience with various microcontrollers (e.g., AVR, ESP32) for custom electronics.
- **Circuit Design:** Schematic design and PCB layout using tools like Fritzing or Eagle.
- **Sensor Integration:** Working with sensors for data acquisition and control.

Professional Experience:

REPINDIA | Web Developer

- August 2023 - June 2024
- Developed dynamic, responsive websites using React, Tailwind CSS, HTML, and Bootstrap, boosting client satisfaction by 40%.
- Managed end-to-end development of various projects:
  - **Dynamix:** Architected a comprehensive real estate platform utilizing React to showcase properties efficiently isit Dynamix Group for details.
  - **Merino:** Collaborated on the Merino Laminates website, leveraging PHP and Tailwind CSS for a seamless user experience.

College Project:

Final Year Project: Telepresence Virtual Doctor Robot

Objective

- Developed an innovative telepresence robot to aid hospital operations during the COVID-19 pandemic, facilitating virtual patient examinations and data collection.

Capabilities

- **Telepresence:** Enables doctors to remotely examine patients, reducing physical contact and infection risks.
- **Room Sanitization:** Assists in sanitizing hospital rooms autonomously, enhancing operational safety.
- **Medication Transport:** Facilitates safe transport of medications and supplies within the hospital.

Technologies Used
Programming Language: Utilized C++ for system programming.
Sensor Integration: Integrated temperature sensors, SpO2 meters, and other sensors for real-time patient data acquisition.
Benefits
Pandemic Response: Helps mitigate COVID-19 spread by minimizing direct contact between healthcare providers and patients.
Operational Efficiency: Enhances hospital efficiency by automating routine tasks and enabling remote patient monitoring.
Safety: Improves safety for healthcare staff by reducing exposure to infectious environments.

Automatic Railway Gate Control Using Arduino
Objective

- Enhance safety and efficiency at railway crossings through automation.
- **Central Controller:** Uses Arduino Uno to manage system operations.
- **Sensors:** IR sensors detect train arrival and departure.
- **Actuators:** Servo/DC motors control gate movement based on sensor data.
- **Programming Language:** System coded in C++.
- **Functionality:** Automatically opens and closes the gate in response to train detection.
- **Benefits:** Improves crossing safety by reducing human error and minimizing manual intervention.

Smoke Detector Using Arduino

- Objective: Develop an automated system to detect smoke and alert users, enhancing safety.
- Components: Uses Arduino Uno with an MQ-2 gas sensor, buzzer, LED indicator, and LCD display.
- Functionality: Continuously monitors air, triggers alarms, and displays smoke levels on exceeding the threshold.
- Programming Language: System coded in C++.
- Benefits: Provides early smoke detection, improves safety, and facilitates immediate response to potential fire hazards

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Education & Certifications:

- **Bachelor of Technology** from GL Bajaj Group of Institutions, Mathura (2022)
- **10th** From Dayawati Modi Academy (2019)
- **12th** From Dayawati Modi Academy (2017)

Extracurricular Activities

- Volunteered for Annual Sports Festivals, showcasing leadership and organizational skills.
- Active Member of the E-Yantra Robotics Lab, contributing to various robotics projects and competitions.