Satyendra Singh

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Professional Summary

Results-driven **Full Stack Developer** with 2 years of experience building web applications integrated with **IoT** and embedded systems. Expertise in developing scalable solutions using **Node.js**, **React**, and **SQL databases**. Passionate about creating technology solutions that solve real-world problems with a focus on performance and user experience.

Professional Experience

Software Engineer

Houston System, Greater Noida, U.P.

May 2023 - Present

- Architected and implemented a RESTful API using Node.js and MySQL that improved learning management system data storage efficiency by 40%.
- **Developed** a comprehensive access control system using Node.js, React, MySQL, and Docker, successfully integrating with physical hardware components including boom barriers, turnstiles, and tripods.
- Implemented real-time communication architecture using WebSocket, GraphQL, and Apache Kafka, reducing system latency by 60%.
- Engineered hardware-software integrations using multiple protocols (TCP/IP, UDP, HTTP, WebSocket, RS-485) to create seamless connections between web applications and IoT devices.

Projects

Houston System Company Website | React.js, Tailwind CSS, TypeScript, REST API, Git Jan 2025 - Present

- Designed and developed a responsive, SEO-optimized company website showcasing products and services.
- Built modular UI components using React.js and Tailwind CSS, reducing development time for new features by 35%.
- Implemented WhatsApp integration for direct customer feedback, increasing customer engagement by 45%.
- Engineered backend services with Node.js and Express for contact forms, product data management, and real-time customer interaction via chatbot.

Automatic Number Plate Recognition (ANPR) | RestAPI, React, GraphQL, Redux, Git Sep 2024 - Dec 2024

- Built a role-based frontend interface using React.js, Tailwind CSS, and TypeScript with distinct admin and operator access levels.
- Integrated ANPR technology with parking management systems, automating vehicle logging and reducing manual entry errors by 95%.
- Implemented CI/CD using TravisCI, decreasing deployment time by 70% and eliminating deployment-related issues.
- Developed GraphQL and REST APIs to efficiently manage vehicle data, user roles, and system access logs.

Mullanpur Stadium Access Control System | Node.js, MySQL, Database Indexing Feb 2024 - Aug 2024

- **Designed** and deployed a multi-gate access control system serving various user categories at Mullanpur Cricket Stadium.
- Engineered a ticket validation system using QR and RFID scanners that processed 10,000+ tickets per event with 98% accuracy.
- Developed gate-level authorization logic ensuring precise access control based on user roles and permissions.
- Created a centralized Flask-based backend with an optimized MySQL database for real-time validation.

Parking Guidace System | Node.js, React, MySQL, Docker, Git

June 2023 - Jan 2024

- **Developed** a full-stack application providing real-time parking availability information for multi-level parking facilities.
- Integrated IoT parking sensors to detect vehicle presence with 99% accuracy and update slot occupancy in real-time.
- Implemented Redis for handling asynchronous tasks, reducing system load during peak usage by 50%.
- Created digital signage integration showing real-time availability data on P10 LED displays.

Education

Bachelor of Science, in Electronics

Lovely Professional University, Jalandhar, Punjab

Aug. 2013 – May 2018

Higher Secondary Certificate

Aadarsh Sarvodaya Higher Secondary School, Anuppur, M.P.

Aug. 2011 – May 2012

Secondary School Certificate

Aadarsh Sarvodaya High School, Anuppur, M.P. Aug. 2009 – May 2010

Technical Skills

Programming Languages: JavaScript (ES6+), Python, C/C++, SQL, HTML5, CSS3

Frameworks & Libraries:React.js, Node.js, Express.js, Flask, Django, Material UI, Bootstrap, Redux, Pandas, NumPy, Matplotlib

Developer Tools:Git, Docker, Kubernetes, AWS Cloud Platform, CI/CD (TravisCI)

Protocols & APIs:REST, GraphQL, WebSocket, TCP/IP, UDP, HTTP, RS-485

Other Skills:IoT Integration, Embedded Systems, Access Control Systems, Real-Time Data Processing

Soft Skills: Problem Solving, Cross-Functional Collaboration, Technical Documentation, Project Management