Dhruv Khatri

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Education

Bhagwan Parshuram Institute of Technology

Sept 2022 – Present

B. Tech in Electronics and Communications Engineering

Skills

Languages & CS Fundamentals: C/C++, Python, JavaScript, TypeScript, DSA, OOP

Web Development: React.js, Next.js, Node.js, Express.js, Tailwind CSS

Databases & APIs: MongoDB, PostgreSQL, RESTful APIs

Tools & Platforms: Git/GitHub, VS Code, Linux, Windows (NT 4.0, 2000, 10), macOS, Raspberry Pi

Projects

Smart Mirror

Embedded & Web Developer

Tech Stack: Raspberry Pi, Node.js, HTML, CSS, JavaScript

- Built a smart mirror using Raspberry Pi and a two-way mirror, featuring an interactive real-time dashboard for weather, news, time/date, and Google Calendar integration.
- Developed a modular front-end with HTML, CSS, and vanilla JavaScript, and managed dynamic data rendering with a lightweight Node.js backend.
- Integrated voice control via a lightweight speech recognition system to enable hands-free interactions.
- Optimized system performance by minimizing startup time and memory usage for seamless operation on limited Raspberry Pi resources.

E-Commerce Website

Full-Stack Developer

Tech Stack: Node.js, Express, MongoDB, EJS, Stripe API

- Designed and developed a full-featured e-commerce platform with user authentication, secure login/signup (encrypted password storage, session management), product browsing, cart management, and order placement.
- Built dynamic product listing and detail pages using EJS templating with MongoDB backend, alongside a responsive, mobile-friendly frontend featuring real-time filtering and search.
- Integrated Stripe API for secure online payments and created a seamless checkout workflow, including order confirmation and automatic cart clearing.
- Architected the system following the MVC pattern, developing RESTful APIs for users, products, and cart operations to ensure modular, scalable, and maintainable code.

BetterReads – Book Tracking & Recommendation Web App (In Progress)

Full-Stack Developer

Tech Stack: Node.js, Express, React, PostgreSQL, Prisma

- Designing and building a web application where users can track books, write reviews, and receive personalized book recommendations based on reading history.
- Architecting the backend using Express, PostgreSQL, and Prisma ORM for efficient database management, and creating RESTful APIs to support application features.
- Developing a React-based frontend with dynamic components for book search, bookshelf organization, and detailed book pages, while managing state with React Context API.
- Integrating Google Books API to fetch metadata (title, author, cover, description) and implementing JWT-based user authentication with protected routes.