Pushpalatha Bandapu

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SUMMARY

Skilled software engineer with 3+ years in **MERN** stack (**MongoDB**, **Express.js**, **React.js**, **Node.js**) and **SQL** databases **(MySQL, PostgreSQL)**. Proven track record in building scalable web applications, optimizing performance, and crafting **responsive UIs** using **JavaScript**, **TypeScript**, **HTML**, and **CSS**. Strong collaborator with a commitment to continuous learning and industry best practices.

TECHNICAL SKILLS

MongoDB, Express.js, React.js, Node.js, HTML5, CSS3, JavaScript (ES6+), Webpack, Babel, Redux, Bootstrap, Material-UI, RESTful APIs, JSON, AJAX, GraphQL, OAuth2, JWT, Docker, Kubernetes, Jenkins, GitHub Actions, AWS (EC2, S3, Lambda, RDS), Azure, CI/CD, Git, Unix, MVC, MVVM, Postman, Jest, Mocha, Chai, VS Code, MySQL, NoSQL.

EXPERIENCE

Research Developer

University of Houston   **May 2022 - May 2024, Houston, TX**

- Developed and maintained web applications using **Node.js**, **Express.js**, and **SQL databases** (**MySQL**, **PostgreSQL**) to assist students and faculty in managing schedules, course materials, and communications. Ensured applications were user-friendly and accessible, providing a smooth experience for users with varying technical skills.
- Created interactive tools and resources using **React.js** and **JavaScript** to support students' learning experiences. This included developing quiz platforms, flashcards, and study aids that faculty could easily customize and deploy for their courses, helping enhance the overall educational process.
- Assisted in the development of basic data collection forms and surveys using the MERN stack to gather feedback from students and faculty. Implemented simple data visualization features to help faculty analyze survey results and make informed decisions about course content and teaching methods.

Software Engineer

Infoville Solutions   **Aug 2018 – Jan 2022,Bangalore,India**

- **Dashboard and Data Collection** Analyzed, monitored, and implemented **real-time dashboards**. Developed interactive data collection systems using component and template-based views in **Django**, leveraging the **MERN stack** for robust, scalable solutions.
- **Frontend Optimization** Optimized performance using **React, Material-UI**, and **Tailwind CSS** for efficient, responsive design. Leveraged **Redux** for state management and **GraphQL** for improved data fetching efficiency.
- **Database Management** Developed and maintained **SQL** and **PostgreSQL** databases, ensuring data integrity and optimizing query performance. Utilized **Node.js** and **Express.js** for backend development, integrating **RESTful APIs** to support frontend functionalities.
- **Process Automation** Automated and optimized processes in the Claims Management application using **Node.js**, **Express.js**, and **Next.js**, reducing manual QA tester hours by **36%** and bug identification time by **40%**.
- **User Interface Enhancement Enhanced UI features and developed dynamic, interactive interfaces with React and Next.js, resulting in a 65% increase in user satisfaction, as measured by surveys.**
- **Authentication and Version Control** Implemented **JWT** for authentication and maintained version control with **Git**. Proficient in **Azure services** including Service Fabric, Search, Functions, and **DevOps**. Strong advocate for **Agile** methodologies like **Scrum** and **Kanban**, emphasizing effective communication and documentation.

PROJECTS

React Trading Dashboard   **Live Demo**

Project Description: Developed a comprehensive trading dashboard using **React** to visualize financial data and facilitate spot trading. The application includes dynamic data visualization, **user authentication**, and **currency rate tracking**.

- **User Interface and Integration:** Developed a responsive, user-friendly interface using **React** and **Material-UI**, incorporating dark mode for enhanced user experience. Utilized **Context API** for state management and integrated **external APIs** to fetch real-time currency exchange rates, ensuring a seamless user experience with features like user authentication **(OAuth2, JWT)** and smooth routing **(React Router)**. Implemented dynamic data visualization using **Chart.js**, optimizing component rendering and employing **Reacts** lazy loading to enhance performance. Ensured the application's reliability through comprehensive unit and integration testing with **Jest**. Deployed the application on cloud platforms, ensuring scalability and accessibility, and integrated robust user login functionality.

Environment: JavaScript, React.js, Node.js, Material-UI, Chart.js, React Router, Context API, Axios, Jest, npm, Git, Netlify.

Paytm Clone: Responsive Payment Application   **Live Demo**

Project Description: Developed a highly responsive clone of the Paytm website using modern web technologies. This project focuses on replicating the **UI/UX** and core functionalities of the **Paytm app**, providing features for payments, recharges, and financial services.

- **User Interface and Integration:** Implemented a user-friendly and responsive interface using **HTML, CSS**, and **Tailwind CSS**, creating reusable and maintainable components for various sections of the application. Ensured full responsiveness across different devices and screen sizes, developed seamless **navigation** and **routing**, and simulated payment gateways and financial transactions. Managed data flow and state using modern **JavaScript techniques**, added subtle animations and transitions to enhance the user experience, conducted thorough testing to ensure cross-browser compatibility and responsiveness, and deployed the application on **Netlify** for public access and testing.

Environment: JavaScript, React.js, Node.js, Material-UI, Chart.js, React Router, Context API, Axios, Jest, npm, Git, Netlify.

EDUCATION

Masters in Computer Science

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