PRATHYU PRASAD PK

Full Stack Developer | 2 Years of Experience

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Summary

A full-stack web developer with **2 years of experience** in building scalable healthcare solutions from the ground up. Expertise in backend development using Node.js, microservices architecture, and AWS. Skilled in React.js, TypeScript, and delivering efficient, robust applications in fast-paced environments.

Skills

Back-end : Typescript, Node.js Microservices, Amazon Web Services (EC2, ECR, S3), Docker, Nginx, RabbitMQ
Front-end : Angular, React,TypeScript,Redux,Thunk
Databases : PostgreSQL, MongoDB, Redis
Tools / Platforms : Git/GitHub
Others : RESTful API,Responsive Design ,Problem Solving,Communication, Teamwork

Professional Experience

Neos HealthTech
Backend developer

Remote
Aug 2022 - Nov 2024

- Improved radiologists' efficiency through the development of **Flow**, a cloud-based application designed to provide radiologists with essential tools and AI assistance, streamlining workflows and improving diagnostic accuracy.
- Played a key role in building the project from scratch, collaborating with a team of four to design scalable architecture and implement core features
- Gained expertise in radiology workflows and **medical imaging standards** (DICOM, DICOMweb).
- Designed and implemented 1 microservices using **Node.js, TypeScript, and MongoDB,** ensuring scalability and performance. Worked on othor 4 microservices utilizing **PostgreSQL**, optimizing database operations for specific use cases.
- Maintained effective code structure, reducing complexity by 20% through **OOP** component refactoring.
- Developed and maintained secure **RESTful** APIs using access and refresh token-based authentication for seamless communication between microservices and frontend applications."
- Implemented **WebSocket protocol** to enable real-time tracking of user status, improving system responsiveness and enhancing user experience.
- Enhanced inter-service communication efficiency by 30% through **RabbitMQ** migration from REST to asynchronous messaging.
- Developed an AI-powered bot to automate medical report generation, streamlining the diagnostic process.
- Utilized **Docker** to containerize applications, streamlining development and deployment processes.Reduced **AWS ECR** costs by 50% by optimizing Docker images
- **Led the design** and implementation of a task management feature that allows assigners to allocate patient studies to radiologists, streamlining workflows and enhancing productivity.
- Customized the **OHIF DICOM** Viewer (React-based open-source project) to meet specific product requirements.
- Gained hands-on experience with on-premise deployment of cloud architecture, acquiring in-depth knowledge of networking and the critical role of **Nginx as a reverse proxy**.
- Collaborated with diverse teams to develop and deploy efficient solutions.

Projects

Mini Social Media App 🔗
A full-stack MERN-based social media platform with essential user engagement features.
- Features: User authentication (email/Google), post creation/editing, like/dislike functionality.
- Role & Responsibilities: Developed REST APIs (Node.js, Express), implemented state management (Redux), and built a responsive UI with Material-UI.
- Tech Stack: Node.js, Express, MongoDB, React, Redux, Material-UI.

To-Do AI Agent 🔗
Developed an AI-powered to-do list assistant that enables users to manage tasks through natural language interactions. The assistant follows a structured approach—START, PLAN, ACTION, OBSERVATION, and OUTPUT—to process user queries and perform actions such as creating, searching, retrieving, and deleting tasks from a database.
- Technologies Used: Node.js, Drizzle ORM, PostgreSQL, OpenAI API, JavaScript
- Key Features: Natural language processing for task management Structured AI reasoning with automated planning and execution Database operations using Drizzle ORM Interactive command-line interface

Education

Govt. College Kasaragod,Kannur University
BSc. Computer Science

Kerala
Jul 2018 - Apr 2021