### 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 Aug 2022 - Nov 2024

• Improved radiologists' efficiency through the development of **Flow**, a cloud-based application designed to provide radiologists with essential tools and Al 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 other 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 Al-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 social media application with essential features for user engagement.

- Features
  - View posts created by other users.
  - User authentication with email and Google.
  - Edit or delete personal posts.
  - Like and dislike posts.
- Role & Responsibilities:
  - Built REST APIs to connect the backend (Node.js, Express) with the frontend (React).
  - o Implemented state management using Redux for seamless user interactions.
  - Createda responsive UI using Material-UI, ensuring compatibility across devices.
  - o Learned and applied Material-UI and Redux to enhance project functionality.
  - o Completed the project independently within 10 days.
- Tech Stack: Node.js, Express, MongoDB, React, Redux, Material-UI

#### **Education**

Govt. College Kasaragod, Kannur University
BSc. Computer Science