# MUHAMMED RAFI K P

# MERN Stack Developer

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#### PROFILE SUMMARY

Skilled Full Stack Developer specializing in scalable web applications. Experienced in both frontend and backend development with strong problem-solving abilities. Passionate about writing clean code, optimizing performance, and delivering user-centric solutions.

#### TECHNICAL SKILLS

- **Programming Languages:** JavaScript, TypeScript, Java (Basics), C (Basics)
- Frontend Technologies: HTML5, CSS3, React.js, Redux, Tailwind CSS, Bootstrap, Material-UI
- Backend Technologies: Node.js, Express.js, WebSocket, RESTful APIs, Redis
- Databases & Cloud Storage: MongoDB, Firebase, PostgreSQL, Amazon S3, Cloudinary
- DevOps & Deployment: Docker, Kubernetes, Git, GitHub, GitHub Actions, CI/CD Pipelines
- Microservices Architecture: RabbitMQ, gRPC, REST-based service communication, Design Patterns
- Tools: Postman, Figma

## **PROJECTS**

# • Greenora - Smart Waste Management Application



An end-to-end microservices-based smart waste management solution enabling users to request waste and scrap pickups, track waste collection in real-time, and promote sustainable practices through intelligent features and seamless communication.

- Designed a responsive, user-friendly UI using React.js, Redux Toolkit, and Tailwind CSS.
- Secured authentication with **JWT**, **Google OAuth**, and added token blacklisting to prevent unauthorized access.
- Implemented real-time chat and notifications with **Socket.IO** for instant communication.
- Integrated Razorpay payment gateway for seamless transaction processing.
- Built a chatbot using Gemini API to assist users with waste management queries.
- Integrated location services and Mapbox API for accurate location tracking.
- Used **Redis** caching to optimize application performance.
- Leveraged **RabbitMQ** for asynchronous messaging and **gRPC** for synchronous communication between microservices.
- Deployed on **Google Kubernetes Engine (GKE)** within **Google Cloud Platform (GCP)** for scalability and reliability.
- Leveraged **AWS S3** for secure cloud storage of user data.

**Tech Stack:** React.js, Redux Toolkit, Tailwind CSS, Node.js, Express.js, MongoDB, RabbitMQ, gRPC, Redis, Socket.IO, Razorpay, Mapbox, Google OAuth, AWS S3, GCP (GKE), Vercel, JWT

#### • Stepex - E-commerce Application



Built a dynamic and scalable e-commerce platform where users can browse, explore, and purchase shoes from a wide variety of top brands.

• Designed an intuitive and visually appealing UI to enhance the user shopping experience.

- Built a real-time shopping cart system supporting seamless product selection, quantity updates, and pricing, boosting conversion rates.
- Implemented advanced product filtering, search, and sorting features to help users quickly find their ideal shoes.
- Integrated Razorpay for secure and reliable payment processing.
- Built an intuitive admin panel for efficient product, order, and user management.
- Added promotional features including offers, coupons, referral programs, and a built-in wallet system to increase user engagement and retention.
- Deployed the application using PM2 and Nginx on AWS for reliable performance and scalability.

**Tech Stack:** Node.js, Express.js, MongoDB, EJS, Bootstrap, CSS, Razorpay, GitHub, AWS, PM2, MongoDB Atlas, Nginx.

### MINI PROJECTS

# User Management System



Developed a secure user management system featuring authentication, role-based access control, and profile management.

- Deployed secure login using **JWT** for authentication.
- Engineered role-based access control to manage user permissions effectively.
- Enabled user profile creation, editing, and management through a **React.js** frontend with **Redux** state management.

Tech Stack: Node.js, Express.js, MongoDB, JWT, React.js, Redux.

React Netflix Clone

GitHub

Built a responsive Netflix clone that features dynamic movie browsing and secure user authentication.

- Developed an interactive UI to browse movies, TV shows, and watch trailers seamlessly.
- Leveraged TMDB API for real-time movie and show data.
- Implemented **Firebase** authentication to manage user profiles and personalized watchlists.
- Optimized performance using lazy loading and ensured responsive design across devices.

Tech Stack: React.js, Firebase, Tailwind CSS, TMDB API.

#### **EXPERIENCE**

• Ecomex [🏶]

Sep 2024 - Present

Freelance Web Developer

Remote

- Created modern, responsive portfolio websites tailored to small business needs, improving their online presence.
- Crafted mobile-first UI using HTML5, CSS3, and JavaScript frameworks for better user engagement.
- Collaborated with clients to deliver tailored solutions.

#### **EDUCATION**

MERN Stack Development

Nov 2023 - Present

Brototype, Calicut

Bachelor of Science in Physics