# **MUHAMMED SINAN**

# MERN Stack Developer

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### PROFILE SUMMARY

Results-oriented MERN Stack Developer with practical expertise in designing, building, and deploying scalable web applications. Skilled in crafting robust, secure, and user-centric solutions leveraging MongoDB, Express.js, React.js, and Node.js. Committed to optimizing performance, maintaining clean architecture, and integrating emerging technologies to drive impactful results.

#### SKILLS

- Languages: JavaScript, TypeScript, SQL, HTML, CSS
- Frameworks: Node.js, Express.js, Nest.js, Next.js, TailwindCSS
- Database: MongoDB, PostgreSQL
- Libraries: React.js, Socket.io, WebRTC, Redux, React-query, Three.js, Framer Motion, Axios, JWT, GoogleAI, OpenAI, OAuth 2.0, Nuqs
- Platforms: AWS, GitHub, Render, Vercel, Firebase, Cloudinary
- Tools: Docker, Git, GitHub Actions, CI/CD, Winston, ESLint, NPM
- Concepts: Clean Architecture, MVC Architecture, SOLID Principles, Agile Methodologies
- Others: Self-driven, Leadership, Multitasking

### **PROJECTS**

# • AVM Ayurvedic: Hospital Management Platform

Live Link | GitHub | Demo

- Developed a wellness platform offering AI-powered health insights and Ayurvedic consultations. It features video
  consultations, secure payments, real-time notifications, and role-based access for different users. The platform
  ensures a seamless and secure experience for users seeking Ayurvedic wellness services.
- Enhanced frontend with Next.js and TailwindCSS, achieving 90+ scores in Google Lighthouse for SEO, performance, and accessibility.
- Enabled real-time video consultations using **WebRTC** and SimplePeer, improving user engagement.
- Added real-time notifications and chat with WebSocket and generative AI via Gemini Flash.
- Designed a secure backend architecture using Node.js, Express.js, and MongoDB, adhering to Clean Architecture principles.
- Deployed the platform on AWS and Vercel, implementing CI/CD pipelines via GitHub Actions.
- Integrated role-based access control (RBAC) to manage user authentication and permissions.
- Technologies used: Next.js, TypeScript, WebRTC, Socket.io, TailwindCSS, Node.js, Express.js, MongoDB, Stripe, JWT, OAuth 2.0, Gemini, AWS, ShadcnUI, S3 Bucket, GitHub.

#### Trends: E-commerce Platform

Live Link | GitHub | Demo

- Created an e-commerce platform that provides secure shopping experiences with features like easy product management, secure payments and personalized cart and wishlist. The platform also includes an admin panel for efficient sales and product management.
- Streamlined payment integrations using **Razorpay** with order tracking and coupon management.
- The platform is fully customizable, featuring dynamic filters and banners.
- Built an **admin panel** for product, category, and order management, incorporating sales analytics and PDF invoice generation.
- Enhanced customer support with real-time communication via Polling.
- Technologies used: Node.js, Express.js, MongoDB, EJS, Razorpay, PDFKit, JWT.

# MINI PROJECTS

# • Readify: Article Management Platform

Live Link | GitHub

- Built a **content discovery platform** enabling users to discover, post, and engage with articles anonymously.
- Incorporated Cloudinary for seamless image handling and optimized performance with Next.js 15 and TailwindCSS.
- Leveraged Nuqs state management for efficient pagination and improved user interaction.
- Secured platform access via JWT, ensuring data protection and privacy.

• Technologies used: Next.js, TypeScript, Cloudinary, MongoDB, JWT, React Hook Form.

## Sahithyolsav Manager: Event Management Tool

Live Link | GitHub | Demo

- Designed an event management tool supporting participant/team registration and performance tracking.
- Enhanced performance by reducing API calls by 80% through efficient state management.
- Applied lazy loading and code splitting to improve load times.
- Technologies used: React, Redux, Node.is, Express.is, MongoDB, JWT.

• URL Shortener Live Link | GitHub

- Developed a **URL shortening platform** that allows users to generate and manage short links effortlessly.
- Enhanced performance and scalability by leveraging **NestJS** for the backend and **MongoDB** for data storage.
- Included link analytics to track clicks, expiration dates, and usage trends.
- Technologies used: NestJS, React, MongoDB, JWT.

# · Ace-Quiz: Quiz App

Live Link | GitHub | Demo

- Ace-Quiz is a scalable quiz application built with Next.js and TypeScript, following Clean Architecture principles for maintainable code.
- Integrated Radix UI and Redux Toolkit for efficient state management and smooth UI experience.
- Implemented CI workflows for streamlined deployment and testing with GitHub Actions.
- Focused on modular code organization and scalability, ensuring flexibility for future improvements and features.
- Technologies used: Next.js, MongoDB, Node.js, Express.js, TypeScript, Clean Architecture.

#### **OPEN SOURCE CONTRIBUTIONS**

## Strapi: Security Improvements

Website | GitHub

- Developed a critical **security enhancement** to strengthen compliance with modern security standards.
- Submitted a pull request under review, addressing security vulnerabilities in the authentication mechanism.

# Impler.io: Authentication Enhancements

Website | GitHub

- Identified and resolved 2 critical vulnerabilities in password hashing, improving platform security.
- Submitted and merged **2 pull requests**, implementing stronger password validation and optimized hashing algorithms.

## Origin UI: Component Development

Website | GitHub

- Contributed 2 new UI components, enhancing the library's usability and accessibility for developers.
- Designed and implemented **custom button components**, broadening the component library offerings.

#### **EDUCATION**

• MERN Stack Development Brototype, Kozhikode, Kerala 2023 - Present

• Higher Secondary (Science) SNGHSS, chelannur, Kozhikode, Kerala 2021 - 2023