

PARIPALLI NAVARAJ

Full Stack Developer (MERN Stack)

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PROFESSIONAL SUMMARY

Full Stack Developer with 1+ year of hands-on experience building secure, scalable e-commerce applications using the MERN stack. Currently developing production-ready e-commerce platforms for multiple clients at a digital marketing company. Strong expertise in implementing enterprise-level security features, authentication systems, admin dashboards, and performance optimization. Proven ability to write clean, maintainable code and deliver feature-complete modules independently.

PROFESSIONAL EXPERIENCE

Full Stack Developer (MERN Stack)

Mantra Solutions (NextGen Services) | Digital Marketing & E-Commerce Solutions

September 2024 – Present

Developing enterprise e-commerce platforms for multiple clients across various business sectors with focus on security, performance, and scalability. Building production-ready applications handling authentication, authorization, product management, order processing, and admin operations.

Authentication & Security Implementation:

- Built complete JWT-based authentication systems with OTP verification using third-party SMS API, managing secure user registration and login flows
- Implemented Redis session management reducing database authentication queries by 80% and improving response times
- Developed role-based access control (RBAC) systems with Super Admin and Admin roles managing granular permissions for different user types
- Created automatic token refresh mechanism preventing session timeouts and providing seamless user experience
- Implemented comprehensive security architecture including CSRF protection, XSS prevention, SQL injection protection, rate limiting (100 req/15min), security headers, HPP protection, and custom Web Application Firewall (WAF) with IP filtering

Admin Dashboard Development:

- Built comprehensive admin panels with 6 major modules: Product Management, Order Management, User Management, Admin Management, Analytics Dashboard, and Audit Logging
- Developed complete CRUD operations for product management with search, filter, pagination, and image management capabilities
- Created bulk product upload feature using CSV parsing library processing files with 500+ products in under 3 seconds
- Implemented document verification workflows with approve/reject functionality and status tracking for business-specific requirements
- Built order management interface with real-time status updates, fulfillment tracking, and order processing capabilities
- Developed analytics dashboards with statistics cards, recent activity feeds, and quick action buttons for administrative insights

- Created admin audit logging system tracking all administrative actions with timestamps, user details, and action types for security compliance

Backend API Development:

- Designed and developed 30+ RESTful API endpoints with Express.js handling user authentication, product operations, order processing, and admin functionalities
- Architected MongoDB database schemas for 12+ collections with proper relationships, indexing, and data modeling reducing query execution time by 65%
- Implemented custom middleware layers for authentication verification, authorization checks, input validation, sanitization, error handling, and request logging
- Integrated cloud-based media management service handling 200+ product images with automatic optimization reducing image size by 60% and implementing CDN delivery
- Built custom Web Application Firewall with IP filtering, request validation, payload inspection, and threat detection protecting against common security vulnerabilities

Frontend Development:

- Developed responsive React.js applications with 25+ reusable components following component-based architecture and modern design patterns
- Implemented Redux Toolkit for centralized state management across admin and user interfaces handling complex application state
- Built React Router navigation with protected routes, role-based rendering, and dynamic route guards ensuring proper access control
- Created intuitive admin and user interfaces with real-time form validation, error handling, loading states, and user feedback mechanisms
- Integrated HTTP client library for API communication with custom interceptors for automatic token management and error handling

Performance Optimization:

- Implemented Redis caching strategy reducing database queries from 10 to 2 per page load and significantly improving response times
- Optimized API response time from 2.1s to 0.6s through database query optimization, proper indexing, and efficient data retrieval strategies
- Reduced image load times by 70% using CDN delivery, lazy loading techniques, and image optimization strategies
- Implemented database indexing strategies on frequently queried fields improving search and filter performance by 60%

Deployment & DevOps:

- Deployed full-stack e-commerce applications on cloud hosting platform with environment-specific configurations for development, staging, and production
- Set up continuous deployment pipelines ensuring automatic builds and deployments on code updates
- Managed environment variables, API keys, and sensitive configuration data securely across different deployment environments
- Deployed static React websites on hosting platform with automated CI/CD pipelines and optimized production builds

Key Achievements & Metrics:

- Developed and tested 30+ RESTful API endpoints currently running in staging environments
- Built product management systems handling 10,000+ items with efficient querying and search capabilities
- Implemented authentication flows tested with 20+ user accounts across different roles

- Created document verification workflows processing 100+ sample documents in staging environment
- Achieved 80% reduction in authentication-related database queries through Redis implementation
- Optimized API response times achieving 600-650ms average response time through caching and query optimization
- Improved database query performance by 60-65% through proper indexing strategies

Technologies Used: Node.js, Express.js, MongoDB, Redis, React.js, Redux Toolkit, JavaScript (ES6+), JWT, Bcrypt, Tailwind CSS, Cloud Media Management, SMS API Integration, CSV Parser, File Upload Middleware, Security Middleware, Rate Limiting, Git, GitHub, Postman, Cloud Hosting Platforms

TECHNICAL SKILLS

Frontend Development:

React.js, Redux Toolkit, JavaScript (ES6+), HTML5, CSS3, Tailwind CSS, Bootstrap, Responsive Design, React Router, Axios, Material-UI, Component Architecture, State Management

Backend Development:

Node.js, Express.js, RESTful API Design, JWT Authentication, Session Management, Middleware Development, Error Handling, Request Validation, Logging Systems

Database & Performance:

MongoDB, Mongoose ODM, Database Schema Design, Query Optimization, Indexing Strategies, Redis (Session Management & Caching), Data Modeling, Aggregation Pipelines

Security & Best Practices:

JWT Token Management, CSRF Protection, XSS Prevention, SQL Injection Protection, Security Headers, Rate Limiting, HPP Protection, Web Application Firewall (WAF), Data Sanitization, Cookie Security, CORS Configuration, Input Validation

Third-Party Integrations:

Cloud Media Management & CDN, SMS/OTP Authentication APIs, Email Services, File Upload Middleware, CSV Processing Libraries

Tools & Deployment:

Git & GitHub (Version Control), npm (Package Management), Postman (API Testing & Documentation), VS Code, Cloud Hosting Platforms, Environment Configuration, CI/CD Pipelines

Development Practices:

RESTful API Development, Role-Based Access Control (RBAC), Two-Factor Authentication, Admin Dashboard Development, Audit Logging, Error Handling, Code Documentation, Manual Testing, Debugging

EDUCATION

Full Stack Development Bootcamp (MERN Stack)

10x Academy | July 2022 – June 2023

Bachelor of Technology (B.Tech) in Mechanical Engineering

Vaagdevi College of Engineering | 2019 – 2022

Diploma in Mechanical Engineering

VMR Polytechnic Colleges | 2016 – 2019

Secondary School Certificate (SSC)

St Johns High School | 2016

PROFESSIONAL HIGHLIGHTS

- Successfully transitioned from Mechanical Engineering to Full Stack Development through intensive bootcamp training and 1+ year professional experience
- Building production-ready e-commerce platforms with advanced security features including two-factor authentication, session management, and role-based access control
- Developing enterprise-level admin systems with comprehensive CRUD operations, analytics dashboards, and user management for multiple client projects
- Implementing comprehensive security architecture with multiple protection layers including authentication, authorization, data validation, and threat prevention
- Writing clean, maintainable code following best practices with proper error handling, validation, and documentation
- Taking independent ownership of complete features from database design to frontend implementation and deployment
- Demonstrated strong problem-solving skills with ability to debug complex issues and optimize application performance achieving measurable improvements