Rasim Musthafa

Kannur,Kerala | razmrz666@gmail.com | 9207670346 | Linkedin.com | Github.com

Professional Summary

Full Stack Developer with hands-on experience building scalable web applications using Next.js, React.js, Fastify, TypeScript, TypeORM, and PostgreSQL. Skilled in developing responsive frontend interfaces, RESTful APIs, authentication systems, and admin dashboards, with working knowledge of AWS infrastructure (EC2, VPC, networking) and AI-assisted development tools. Strong in clean architecture, performance optimization, and delivering reliable end-to-end solutions.

Professional Experience

Full Stack Developer at SHINR Technologies Pvt. Ltd. **June 2024 – May 2026 | Kannur, Kerala**

- Developed responsive web applications and admin dashboards using Next.js, React.js, and TypeScript.
- Built reusable frontend components and integrated RESTful APIs for seamless user experiences.
- Implemented protected routes, authentication flows, and role-based access control in frontend applications.
- Collaborated on full stack feature development across frontend and backend systems.
- Architected and developed a scalable user management microservice using Node.js, TypeScript, Fastify, and PostgreSQL with TypeORM.
- Implemented secure OTP-based authentication with JWT (access, refresh, OTP tokens) using the Jose library and device-based logout, improving session security across devices.
- Designed optimized TypeORM models with relationships, indexes, constraints, and managed migrations for schema consistency.
- Integrated Ola Maps API for reverse geocoding and autocomplete to enable accurate, location-based address management.
- Built RESTful APIs with Joi schema validation, custom error handling, and complete OpenAPI/Swagger 3.0 documentation.
- Applied modular architecture and modern TypeScript best practices for maintainable, scalable, and type-safe development.
- Leveraged ts-node, connection pooling, and environment-specific configurations for efficient development and production deployment.
- Deployed and managed backend services on AWS EC2 with PM2 process management, configuring VPC, subnets, route tables, and internet gateways for secure network architecture; deployed frontend applications to Vercel with GitHub-based CI/CD.

Intern, Tech GrayLogix **Aug 2023 – Sep 2023 | Mangalore, Karnataka**

- Researched and analyzed the integration of IoT and embedded systems, focusing on how smart devices collect, process, and exchange data.
- Studied the architecture and characteristics of embedded systems used in IoT applications.
- Explored real-world applications of IoT across sectors such as healthcare, transportation, and manufacturing.
- Investigated key challenges in IoT systems, including security, reliability, and interoperability.

Education

Bachelor of Engineering in Electronics and Communication 2020-2024

AJIET, Mangalore, Karnataka

Projects

AI-Powered Travel Booking Chatbot – Kairalitrails

- Building a conversational AI chatbot system using LangChain and LangGraph for a South India-based travel operator specializing in Southeast Asia packages.
- Designed multi-turn booking flows to guide users through package discovery and reservation steps.
- Implemented RAG (Retrieval-Augmented Generation) pipeline for accurate, context-aware travel package recommendations.

Real-Time Traffic Sign Detection and Speed Control Using Raspberry Pi

- Developed a real-time traffic sign detection system using Raspberry Pi, Pi Camera, OpenCV, and TensorFlow Lite.
- Deployed a CNN-based traffic sign classifier on edge hardware and optimized it for low-latency embedded inference.
- Implemented PWM-based motor speed control with L293D motor driver, dynamically adjusting vehicle speed based on detected signs.
- Designed stable detection logic using confidence thresholds and time-based filtering to eliminate flickering predictions.

Low Power High Performance Arithmetic Circuit

- Designed a Full Adder circuit using Tanner EDA and 90 nm CMOS technology, optimizing power efficiency and speed for arithmetic operations.
- Achieved at least 7.5% reduction in Power Delay Product (PDP) compared to existing XOR/XNOR designs.
- Conducted post-layout simulations to validate power, area, and timing performance.

Lightweight ANU-II Block Cipher on FPGA

- Implemented a lightweight block cipher (ANU-II) on FPGA for secure embedded applications.
- Balanced cost, speed, security, performance, and power consumption for constrained environments.
- Delivered an efficient encryption solution suitable for IoT devices, RFID tags, and low-resource systems.
- Achieved significant throughput improvement while maintaining minimal resource utilization.

Skills

Languages: Java, JavaScript, TypeScript, SQL

Frameworks: Node.js, Fastify, Express.js, Hibernate, Nest.js, Next.js

Library: React.js

Databases: PostgreSQL, MySQL, MongoDB

ORM / Libraries: TypeORM, bcrypt, jose, Joi

Cloud & DevOps: AWS (EC2, VPC, Subnets, Route Tables, Internet Gateway, Security Groups), PM2, Vercel (CI/CD Deployment), Git, GitHub

AI Tools: Claude (Anthropic), LangChain, LangGraph, RAG, GitHub Copilot

Tools: Postman, Swagger

Concepts: RESTful API Design, JWT Authentication, OTP Authentication, Microservices Architecture, Database Migrations, Reverse Geocoding, Address Autocomplete, OOP, Synchronous and Asynchronous Programming, CORS, Environment Configuration, Token Rotation, JDBC

Certification

Java Full Stack — **JSpiders, Bangalore**

Basics of Computer Networking — **Great Learning**

Arduino vs Raspberry Pi — **Great Learning**