

Muhammad Ahad

Software Engineer

✉ muhmmadahad594@gmail.com ☎ +92 306 9595997 📠 muhammad-ahad-87349020a 🌐 ahadg

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python

Frontend Technologies: React, Next.js, React Native, Redux, HTML5, CSS3, Tailwind CSS

Backend Technologies: Node.js, Express.js, Flask, FastAPI, REST APIs, MQTT, Socket.IO, Microservices, WebSocket, MQTT, Socket.IO

Databases: PostgreSQL, MySQL, MongoDB, Redis, Elasticsearch, Supabase

Cloud & DevOps: AWS (EC2, S3, Lambda), Docker, Kubernetes, CI/CD, GitHub Actions, NGINX

AI & Machine Learning: OpenAI GPT, LangChain, LangGraph, RAG, Vector Databases

PROFESSIONAL EXPERIENCE

Software Engineer

Remote, USA Oct 2021 –

LeaseMagnets

Present

- Designed and maintained REST APIs and event-driven services using Flask and Node.js, successfully migrating legacy MySQL workloads to Supabase/PostgreSQL with zero-downtime deployment
- Built comprehensive media and lead management pipelines handling upload, transcoding (Coconut.co), storage (GCS/Supabase), and automated attribution systems using Twilio and SendGrid
- Implemented background job processing and scheduled tasks using Redis and cron jobs for analytics aggregation, email campaigns,
- Developed product analytics and data warehousing solutions using Jitsu and BigQuery for cohort analysis, funnel metrics, and user engagement insights
- Built reusable React/Next.js components and state management patterns using Zustand for embeddable tour widgets and AI chat features

Backend Developer

Multan, Pakistan Aug

ZeeSoft

2021 – Oct 2022

- Contributed to 10+ production-grade backend projects, delivering scalable and maintainable solutions with a focus on performance and security
- Built and documented RESTful APIs using Express.js for web and mobile clients, implementing standardized error handling and consistent response formats
- Optimized and refactored existing codebases, including the Srach platform, to improve maintainability, scalability, and query performance
- Designed and implemented MongoDB schemas with Mongoose, leveraging references and indexes for efficient data retrieval
- Integrated backend services with validation and sanitization layers using middleware and Yup, ensuring robust data integrity
- Implemented authentication, authorization, and role-based access controls to secure APIs and sensitive endpoints

MERN Stack Developer

Multan, Pakistan Jan

Zeol

2021 – Aug 2021

- Built and documented REST APIs using Express.js for React and React Native client applications with standardized error handling
- Implemented Redux Toolkit patterns and normalized state management for performant data handling and offline-friendly workflows
- Designed scalable MongoDB schemas with Mongoose, utilizing references and optimized indexes for improved query performance

- Integrated frontend API layers with robust form validation using React Hook Form and Yup, implementing route guards and lazy loading
- Mentored junior developers and interns on MERN stack fundamentals, code reviews, and established Git workflows with linting standards

EDUCATION

Bahauddin Zakariya University

2018 - 2020

Master of Science in Computer Science

- GPA: 3.46/4.0
- **Final Year Project:** Tourism Management System using MERN Stack

KEY PROJECTS

Tour — AI-Powered Virtual Sales Concierge for Property Managers

- Enterprise-grade virtual leasing platform delivering 24/7 AI-guided tours and live video sessions with embeddable widgets and PMS integrations (Entrata, Yardi)
- Achieved over 1.1M tours for 130+ property managers, boosting lead conversions by 75% and closing rates by 25%
- **Technologies:** Next.js, TypeScript, OpenAI, Supabase, Flask, PostgreSQL, Redis, Docker, GCP

ManaPNL — AI-Powered Inventory & Data Management Platform

- Full-stack platform with AI-powered chatbots using RAG architecture for accurate, context-aware responses over domain-specific datasets
- Implemented PDF ingestion for continuous dataset improvement and real-time analytics for sales, expenses, and inventory tracking
- **Technologies:** Next.js, TypeScript, LangChain, LangGraph, OpenAI, Node.js, MongoDB, Redis, Stripe

Freshlay — Food & Grocery Delivery Ecosystem

- End-to-end delivery platform with customer web/mobile apps, rider app, and real-time order tracking using WebSocket and Mapbox integration
- Implemented secure JWT authentication, Redux state management, and integrated Twilio for SMS notifications
- **Technologies:** React, React Native, Node.js, MongoDB, WebSocket, Mapbox, JWT, Twilio

Water Analysis IoT System

- Developed IoT system with MQTT protocol for device communication and WebSocket implementation for real-time sensor monitoring
- Built comprehensive analytics dashboard for device performance tracking and data visualization
- **Technologies:** React, Node.js, MQTT, WebSocket, MongoDB, IoT sensors