

Muhammad Ataa Ur Rasool

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SUMMARY

Software Engineer | Node.js, ASP.NET Core, & Cloud-Native Architecture. Proven track record in designing scalable microservices, distributed systems, and high-performance APIs across **.NET** and **Node.js** ecosystems. Experienced in cloud deployments, CI/CD pipelines, and geospatial systems, focused on delivering robust, production-grade software solutions.

TECHNICAL SKILLS

Languages: Java, JavaScript, TypeScript, Python, C#, Kotlin, C/C++, SQL

Frameworks: ASP.NET Core, Blazor, .NET, Node.js, Express.js, Spring Boot, React, React Native, FastAPI, EF Core, Prisma ORM

Databases: PostgreSQL, MySQL, MongoDB, SQL Server, ChromaDB

Cloud/DevOps: AWS, Docker, Linux, Nginx, Temporal, Cloudflare R2, GitHub Actions, Jenkins, Grafana, OAuth, Clerk

AI / LLM Tools: OpenAI API, Claude API, Hugging Face Transformers, LangGraph, PyTorch, RAG pipelines

Geospatial: GeoServer, Map Integration

Tools: Cursor, VS Code, Visual Studio, IntelliJ IDEA, Android Studio, Postman, Git/GitHub

EXPERIENCE

Zarrardotpk

Design Engineer - Software

- Developing and maintaining backend systems using **ASP.NET Core** and **Blazor**
- Contributing to system design and scalable architecture for production-ready applications
- Deploying containerized applications on **Linux** using **Docker**
- Implementing **CI/CD pipelines** with **GitHub Actions** for automated workflows
- Integrating **GeoServer** and geospatial map services for location-based features
- Building and integrating **RESTful APIs** across distributed systems
- Collaborating using **Git** workflows with focus on debugging, testing, and production support

Feb 2026 – Present

Islamabad, Pakistan

SharkStack

Backend Engineer

- Designed and maintained scalable **RESTful APIs** using **Node.js** and **Express.js**
- Deployed and managed infrastructure on **AWS (EC2, S3)** and **Cloudflare R2** using **AWS CLI**
- Configured **Nginx** for hosting, **reverse proxy**, **SSL termination**, and backend **load balancing**
- Orchestrated distributed background tasks using **Temporal Workflows**
- Integrated **LLM APIs (OpenAI, Claude)** for intelligent parsing, response generation, and automation
- Implemented secure **JWT authentication**, email workflows, and **Stripe** payment processing
- Built a real-time chat system using **Socket.io** with seamless frontend integration
- Produced technical documentation and followed **Agile** development practices

Apr 2025 – Oct 2025

Remote

Buzz Solutions

Full Stack Engineer

- Developed a high-performance **Progressive Web App (PWA)** using **Node.js**, **Express.js**, and **MongoDB**
- Implemented **RBAC**, **JWT authentication**, and offline support using **Service Workers**
- Optimized responsiveness, installability, and cross-device user experience

Nov 2024 – Mar 2025

Islamabad, Pakistan

Dsportshub

Intern Full Stack Developer

- Developed **RESTful APIs** using **Node.js** and **Express.js** integrated with **React**
- Optimized **MySQL** schemas using transactions, indexing, and normalization
- Implemented secure authentication with **JWT**, email verification, and session handling

Jun 2024 – Aug 2024

Islamabad, Pakistan

EDUCATION

FAST NUCES

Bachelor of Science in Computer Science

Islamabad, Pakistan

2021 – 2025

PROJECTS

PaperPal: AI-Powered Academic Research Platform | *Python, FastAPI, React, LangGraph*

- Built a production-ready full-stack AI platform to automate academic research, literature review, and knowledge synthesis.
- Orchestrated a multi-agent system (Planner, Researcher, Synthesizer) with LangGraph for autonomous planning and report generation.
- Implemented an advanced RAG pipeline using ChromaDB, Sentence Transformers, and Gemini / Groq for context-aware synthesis.
- Integrated Arxiv and Semantic Scholar APIs with automated PDF retrieval, extraction, and preprocessing.
- Delivered a FastAPI backend with PostgreSQL, a React + Vite web UI, and a native Android (Kotlin) companion app.

DASPER: Building Damage Assessment Platform (FYP) | *React Native, Flask, PyTorch*

- Developed a production-ready AI-driven mobile platform for rapid and standardized building damage assessment during natural disasters.
- Trained and optimized an EfficientNet-B4 CNN to quantify structural damage severity (0–100%) using advanced computer vision techniques.
- Built a scalable Flask + PyTorch inference backend for image analysis, automated PDF reporting, and cost estimation.
- Integrated real-time disaster data from USGS, NASA EONET, and OpenWeatherMap for contextual risk assessment.
- Delivered an offline-first React Native application for field usage in low-connectivity environments.