Muhammad Ataa Ur Rasool

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EDUCATION

FAST NUCES — Islamabad, Pakistan
Bachelor of Science in Computer Science — *2021 – 2025*

EXPERIENCE

SharkStack — Apr 2025 – Oct 2025
Junior Backend Engineer — *Remote*

- 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

Buzz Solutions — Nov 2024 – Mar 2025
Junior Full Stack Engineer — *Islamabad, Pakistan*

- 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

Dsportshub — Jun 2024 – Aug 2024
Intern Full Stack Developer — *Islamabad, Pakistan*

- 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

PROJECTS

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

- Architected a multi-agent **RAG system** using **LangGraph** for autonomous planning and synthesis
- Built a high-performance **FastAPI** backend with **ChromaDB** vector search
- Integrated **Arxiv** and **Semantic Scholar APIs** for real-time research ingestion
- Implemented optimized **PDF processing pipelines** with **LLM fallback strategies (Gemini, Groq)**
- Developed a modern **React + Vite** web UI and native **Android (Kotlin)** app

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

- Built an end-to-end AI-powered mobile app for automated building damage assessment
- Trained a custom **EfficientNet-B4 CNN** with edge detection and segmentation
- Developed a **Flask + PyTorch** inference backend with PDF reporting and cost estimation
- Integrated live data from **USGS**, **NASA EONET**, and **OpenWeatherMap**
- Delivered an offline-first **React Native** cross-platform application

CodeReview: AI Code Analysis | *React, TypeScript, Node.js, PostgreSQL*

- Built a full-stack AI platform for automated multi-language code analysis
- Integrated **OpenAI GPT-4** using structured prompts and fallbacks
- Implemented secure authentication with **JWT** and **GitHub OAuth**
- Developed UI using **React**, **Monaco Editor**, and **Tailwind CSS**
- Engineered backend using **Express.js**, **PostgreSQL**, and **Prisma ORM**

BankEasy: Banking Application | *Java, Spring Boot, MySQL, React*

- Developed a full-stack banking platform using **Spring Boot**, **MySQL**, and **React**
- Designed relational schemas and implemented **RESTful APIs** using **JDBC** and **JPA**
- Applied modular and scalable architecture across all business domains

TECHNICAL SKILLS

Languages: Java, JavaScript/TypeScript, Python, C#, Kotlin, C/C++, SQL, Rust
Frameworks: Node.js, Express.js, Spring Boot, React, React Native, FastAPI, Flask, Prisma ORM
Databases: PostgreSQL, MySQL, MongoDB, SQL Server, ChromaDB, IndexedDB
Cloud/DevOps: AWS, Docker, Nginx, Temporal, Cloudflare R2, OAuth
Tools: Cursor, VS Code, IntelliJ IDEA, Android Studio, Postman, Git/GitHub