

UMAIR ANWAR

Computer Science Undergraduate | Full-Stack Engineer | Backend Engineering

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ABOUT ME

I'm a Computer Science undergraduate at GIKI, building full-stack web applications with a strong focus on backend systems. I have worked on production projects using TypeScript, Node.js, Express.js, React, and PostgreSQL, including applications used by more than 200 real users. I'm currently learning Spring Boot while exploring system design, distributed systems, caching, message queues, and high-traffic backend architecture. I'm also focused on helping startups and businesses build custom dashboards, internal tools, and full-stack web applications tailored to their needs.

SKILLS

Languages: C, C++, Java, JavaScript, TypeScript, SQL, Python, x86-64 and RISC-V Assembly, Bash

Frameworks & Databases: React.js, Node.js, Express.js, PostgreSQL, MySQL, MongoDB

Authentication & APIs: JWT, OAuth 2.0, REST APIs

Automation & Tools: Git/GitHub, n8n, Docker, Postman, GDB, Cron Jobs

Core Concepts: Web Sockets, Data Structures & Algorithms, Object-Oriented Programming, Database Design

EXPERIENCE

Contour Software

Database Administration & Software Development Intern

June 2026 – July 2026

- Completed a six-week rotational internship across Database Administration and Software Development, gaining hands-on exposure to user roles and permissions, backups, triggers, logs, and database indexing.
- Designed and developed a full-stack web application using HTML, CSS, TypeScript, Vite, Node.js, Express.js, and PostgreSQL; designed the database schema, built REST API, integrated the frontend and backend, and implemented JWT and OAuth 2.0 authentication.
- Deployed the production frontend on Vercel and backend on Render, while working within a professional Git workflow.

MDCATEMY

Backend Engineer

Feb 2026 – Sept 2026

- Built the complete backend API for MDCATEMY, supporting custom quiz generation, admin-created tests for selected students, role-based access control, and authentication across different platform features.
- Developed the MCQ bank and test management system, allowing admins to upload questions through Excel files, insert them into PostgreSQL, manage the question bank, and create custom tests directly from the admin dashboard.
- Built detailed student performance analytics and leaderboard features, including weekly reports, subject-, chapter-, and topic-wise performance, weakest-topic identification, and academy-wide rankings based on predicted MDCAT scores.

EDUCATION

Ghulam Ishaq Khan Institute of Engineering Sciences and Technology (GIKI)

2024 – 2028

Bachelor of Science in Computer Science

CGPA: 3.82

PROJECTS

Roamistan

HTML/CSS, TypeScript, Express.js, Node.js, PostgreSQL

Roamistan is a virtual tourism platform that lets people explore tourist places across Pakistan before visiting them. Users can walk through locations in immersive 3D and 360 views, bookmark their favorite places, and learn about their history. The project also helps hotels, museums, travel agencies, and other tourism businesses promote their destinations through interactive virtual experiences.

LiveNums

TypeScript, React.js, Express.js, Node.js, Web Sockets

Built a real-time web app using Node.js, Express, WebSockets, TypeScript, and React, with instant server-to-client state updates without polling. Added cron scripts to generate automatic state changes every second, along with JWT authentication and username-based rate limiting for WebSocket connections and messages.

ClearCash

TypeScript, React.js, Express.js, Node.js, PostgreSQL

ClearCash is a web-based e-wallet that solves the problem of spending, organizing money, and tracking expenses in a single app. ClearCash removes the need for a separate budgeting app by providing virtual spending pockets, budget tracking, fund transfers, notifications, monthly transaction history, and a built-in calculator in a single app to help you organize and manage personal finances effortlessly.

ACHIEVEMENTS

- Maximum Codeforces Rating: 1113
- Merit Scholarship Holder at GIKI
- ICPC Regional Finalist
- STFS Scholarship Holder
- Four-time Dean's Honor List Recipient
- Best Presentation Award at Contour Software