FATIMA KHALID

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SUMMARY

I have a strong foundation in web development with MERN and a deep interest in AI, combining both with a product driven mindset. Always exploring, learning, and creating, I'm excited to bring my curiosity and adaptability to a team where I can grow and contribute.

EXPERIENCE

SOFTWARE ENGINEERING INTERN
FORGE INTERNSHIP PROGRAM, MINAS CODE
JUNE 2024-AUGUST 2024

- Co-founded a 3-member simulated startup; drove product strategy and full-stack development using the MERN stack (MongoDB, Express, React, Node.js).
- Led MVP development from concept to demo, built core features (user auth, RESTful APIs, real-time updates) and onboarded 15+ test users; recognized for technical excellence and clear stakeholder communication.
- Collaborated with UI/UX designers as a backend engineer in Scrum sprints.
- Leveraged Next.js for front-end rendering, implemented secure JWT authentication, managed state with **Zustand**, styled components via **ShadCN**, integrated real-time communications using **LiveKit**, and organized workflows in Notion to streamline project tracking.

PROJECTS

- Chameleon (Language Exchange Platform) − Built a language exchange platform with Next.js, Node.js, and MongoDB. Enabled real-time chat, video and user matching based on language and interests. Focused on a user-friendly interface. Designed RESTful APIs and WebSocket integration to ensure sub-200ms message latency; deployed on the company's servers.
- Prompt-based AI Video Editor − Created a prompt-based video editor that edits any video based on a simple user prompt. user prompt → GeminiAI command generator → FFmpeg execution, automating edits for videos and reducing manual editing time by 70%.
- Movie Similarity Search (NLP project Python) − Developed a Python program using Natural Language Processing (NLP) techniques with Flask for backend, HTML/CSS for frontend, and Python for analysis to analyze movie plots and recommend similar movies based on their textual content.
- Space Game with UNITY − Designed and developed a 2D space-themed game using Unity with C#, incorporating custom graphics and gameplay mechanics.
- Stock Video Website − Created a platform where users can browse, search, and download high-quality stock videos for personal or commercial use. Used Html, CSS, JS for frontend and Express for backend. Deployed on render.

SKILLS

- Languages: Python, JavaScript (ES6+), C++, C, SQL, HTML/CSS
- Frontend: Next.js, React, Tailwind CSS, EJS templates
- Backend: Django REST Framework, Node.js, Express.js, RESTful API Design
- AI & Agents: LangChain, LangGraph, Flowise, Vector Databases (pgvector), RAG pipelines
- DevOps & Infra: Docker, Coolify, AWS (EC2, S3), PostgreSQL, MongoDB, Git/GitHub, GitHub Actions

EDUCATION

COMSATS UNIVERSITY ISLAMABAD, LAHORE CAMPUS | 2022 – 2026
BACHELOR OF SCIENCE IN COMPUTER SCIENCE | GPA: 3.39/4.0
Relevant Courses: Data Structures, Algorithms, Database Systems, Machine Learning Fundamentals

ACTIVITIES

- **Co-lead AICP** (AI Community of Pakistan) − Helping build and run the AI community, organizing events, and getting students involved.
- **AIESEC** − Joined AIESEC as a team member in ICX (Incoming Exchange).