Khizar Aamir

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EDUCATION

Bachelor of Science in Computer Science (Minor in Economics)　　　　Sep. 2022 – May 2026
University of British Columbia　　　　*Kelowna, BC*

- Dean's List (2023–2025), Deputy Vice-Chancellor Scholarship (2023, 2024)
- Relevant Coursework: Data Structures, Databases, OOP, Discrete Math, Statistics

EXPERIENCE

Software Engineer (Freelance)　　　　Feb 2025 – May 2025
Strike Den　　　　*Remote*

- Engineered a full-stack gym management platform with JWT auth and RBAC, improving scheduling efficiency by 70%.
- Built a responsive admin dashboard for class/trainer management, reducing non-technical workload by 40%.
- Optimized MongoDB queries and implemented ACID-compliant transactions for consistent data integrity and <500ms load times under 300+ concurrent users.

Undergraduate Researcher — Directed Studies　　　　Jan 2025 – May 2025
University of British Columbia　　　　*Kelowna, BC*

- Developed an OpenAI-driven simulation system to emulate realistic student behavior for testing adaptive learning algorithms.
- Validated AI-generated responses against human data using statistical tests to ensure behavioral alignment.
- Deployed system in a 200+ user study to evaluate AI student feasibility as human testing substitutes.
- Authored a research paper detailing system design, validation, and experimental results; targeting top-tier EdTech/AI conferences.

Teaching Assistant　　　　Jan 2024 – Present
University of British Columbia　　　　*Kelowna, BC*

- Assisted 300+ students by leading help desks, grading assessments, and supporting exam delivery in quantitative undergraduate courses.
- Created instructional content and walkthrough guides to reinforce problem-solving techniques and conceptual understanding.

PROJECTS

TSKFLO | *React, Redux, Node.js, Express, Socket.io*　　　　Jan 2025 – Apr 2025

- Built a full-stack task manager with JWT authentication, real-time messaging (Socket.io), and Dockerized microservices.
- Implemented collaborative editing with role-based workflows, increasing team productivity by 35%.

Re:member | *Swift, SwiftUI, Core Data, Metal, MVVM*　　　　Jan 2025 – Apr 2025

- Developed a pixel-art iOS journaling app simulating memory decay using Metal shaders and SwiftUI.
- Optimized Core Data-backed state management, reducing development time by 30%.

Loreleaf | *Next.js, Node.js, PostgreSQL, Prisma*　　　　Jan 2023 – May 2023

- Built a Zettelkasten-style knowledge platform with atomic notes, backlinks, and secure JWT-based authentication.
- Implemented a Force Graph UI enabling dynamic linking, filtering, and visualization of connected notes.

TECHNICAL SKILLS

Languages: Java, Python, JavaScript, TypeScript, SQL (MySQL, PostgreSQL), HTML/CSS, Swift
Frameworks & Libraries: React, Redux, Next.js, Node.js, Flask, FastAPI, SwiftUI, JUnit, Tailwind CSS, Bootstrap, pandas, NumPy, Matplotlib
Tools & Platforms: Git, Docker, Firebase, Vercel, Postman, VS Code, Xcode, Android Studio, IntelliJ, Eclipse