Alyan Shahid

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EDUCATION

National University of Sciences and Technology　　　　　　　　　　　Islamabad, Pakistan
Bachelor of Software Engineering (5th Semester Completed) | CGPA: 3.25　　　*Expected 2027*

Army Public School DHA I　　　　　　　　　　　　　　　　　　　Rawalpindi, Pakistan
Intermediate (F.Sc.) Computer Science (A1: 892/1100)　　　　　　　　　　　*Aug. 2023*

Army Public School Fort Road　　　　　　　　　　　　　　　　　　Rawalpindi, Pakistan
Matriculation Computer Science (A1: 1042/1100)　　　　　　　　　　　　　*Jul. 2020*

PROJECTS

FloodSense | Flood Monitoring System | *React, Supabase, Leaflet API, Node.js*　　Dec. 2025
github.com/alyan101/river-guard-pk
- Developed a real-time dashboard visualizing hydrological data for 80+ geolocated sensors across Pakistan using the Leaflet API and Recharts.
- Integrated Supabase for backend cloud storage and the OpenWeatherMap API for search-triggered live weather tracking.
- Utilized synthetic datasets to simulate extreme flood scenarios, ranking regions by severity through a custom analytics engine built in Node.js.

Tetris Game Group Project | *C++, SFML*　　　　　　　　　　　　　　Aug. 2023
github.com/alyan101/tetris_game
- Designed and developed a Tetris clone with 7 Tetromino types, accurate rotation logic, and collision detection.
- Implemented a dynamic scoring system, next-piece preview, and integrated sound effects using SFML's audio module.
- Packaged a functional EXE with complete assets for modular distribution.

Java Quiz Application | *Java, Swing*　　　　　　　　　　　　　　　Jul. 2023
github.com/alyan101/QuizProject
- Built a GUI-based desktop quiz application with login screen, quiz rules, and score display using Java Swing.
- Utilized arrays for data storage to create a lightweight application without external database dependencies.
- Implemented comprehensive answer validation logic and automatic score calculation.

Booking Management System | *Java, MySQL*　　　　　　　　　　　　　Jul. 2023
- Built an Airbnb-style booking platform implementing relational database integration and automated booking operations.
- Designed an efficient database schema in MySQL to manage complex user and property data relationships.

CPU Scheduling Simulator | *Python, Tkinter*　　　　　　　　　　　　　Jun. 2023
- Built a graphical simulator to visualize various CPU scheduling algorithms with real-time performance output.
- Implemented multiple scheduling techniques using Python and Tkinter for educational visualization.

TECHNICAL COURSES

Fundamentals of Programming, Object Oriented Programming, Data Structures and Algorithms, Database Systems, Operating Systems, Software Design and Architecture, Software Engineering, Machine Learning, Software Construction, Quantum Computing, Cloud Computing

TECHNICAL SKILLS

Languages: JavaScript (ES6+), TypeScript, SQL, Python, C/C++, Java, HTML/CSS
Frameworks: React, Node.js, Express.js, Tailwind CSS, WordPress, Tkinter, SFML
ML & Libraries: TensorFlow, PyTorch, Scikit-learn, Recharts, Leaflet.js
Developer Tools: Git, GitHub (Version Control), Supabase, MySQL, Figma, Visual Studio, VS Code