Muhammad Tayyab

+92-3360845675 ◇ amirtayyab8@gmail.com ◇ Pakistan ◇ LinkedIn ◇ GitHub ◇ LeetCode ◇ CodeForces ◇ Portfolio

SUMMARY

Skilled Full Stack Developer with strong problem-solving skills. Adept at competitive programming, securing top positions in coding competitions. Strong understanding of OOP principles, and real-world software design. Proficient in C++, JavaScript, and MERN with hands-on experience in backend development and database management. Seeking opportunities to apply expertise in software development in real-world projects.

EXPERIENCE

Developer – Microsoft Learn Student Ambassadors (MLSA) Team   Jan '25 — Present
Maintaining and enhancing the official MLSA website. Collaborating with team members to implement features, fix bugs, and improve site performance and usability.

Client Project   Apr '25 — Apr '25
Developed an Windows Forms game in C# with increasing difficulty, random enemy movements, and background sound effects using OOP concepts. Delivered a playable desktop game in accordance to client requirements.

PROJECTS

Microservices Link
- Developed a ticketing application using Node.js microservices. The system includes modular services for **auth**, **tickets**, **orders**, **payments**, and **expiration**, with shared logic extracted into a reusable common module published as an **NPM package**.
- Deployed all services to a **Kubernetes cluster**, with **Ingress-NGINX** managing internal routing and **NATS Streaming** handling inter-service communication.
- Used **Skaffold** for rapid local development with live reloads and streamlined Kubernetes deployments.
- Integrated **Docker** for containerization and implemented a full **CI/CD pipeline** for automated testing and deployment.

Multivendor E-Commerce Platform Link
- Developed a fully **MERN** stack multivendor e-commerce platform with **customer, seller, and admin** roles, enabling seamless **product management, order processing, and role-based access control**.
- Implemented a backend with **Node.js and Express.js**, creating **RESTful APIs** for authentication, product handling, and order processing. Utilized **MongoDB** for scalable data storage.
- Designed an interactive frontend using **React.js**, with **Redux Toolkit** for state management and dynamic UI updates.

Portfolio Website Link
- Built with Next.js, Tailwind CSS, JavaScript.
- Includes information about me, personal projects, tech stack, achievements and contact info.

Solitaire Game Link
- Developed a **Solitaire game** in **C++**, implementing core game mechanics using **data structures and algorithms** for efficient gameplay.
- Utilized **queues** for the waste pile, **stacks** for foundations, and **linked lists** for tableaus, ensuring structured card management.
- Implemented the **Fisher-Yates shuffle algorithm** for randomized and fair card shuffling.

E-Commerce Application Link
- Developed a full-stack E-commerce application using the MERN stack. Features include user authentication, Redux for state management, product management, and order processing.

My Database Link
- Developed a custom **SQL-like database engine** in C++ with support for **SELECT, INSERT, UPDATE, and DELETE** queries using a regex-based parser.
- Implemented a **file-based** storage system and schema manager for dynamic table creation and persistent data handling.
- Support for **Complex logical conditions** (AND, OR, NOT) in WHERE clauses using a custom expression evaluator.

SKILLS

Programming Languages   C++, JavaScript, TypeScript, C#
Frontend Development   HTML, CSS, React.js, Redux, Redux Toolkit, Next.js
Backend Development   Node.js, Express.js, REST, Docker, Kubernetes, Microservices, CI/CD
Databases   SQL, MongoDB, MySQL

EDUCATION

BS in Computer Science, University of Engineering and Technology, Lahore   May '23 — Present

ACHIEVEMENTS

Digital Pakistan Speed Programming Ignite Contest   Jul '25
Competed among **1400+ teams nationwide**, featuring the country's top programmers.
Qualified for the **Top 50 on-site final round** and secured a **Top 25 position** in the finals.

Runner-Up at PUCON'25 held by Punjab University   May '25
Secured 2nd place out of 130+ teams by competing in 2 rounds.

Runner-Up in Code Rush'25 Competitive Programming held by ITU   May '25
Secured 3rd position out of 130+ teams by competing in 2 rounds.

Winner in Logiz Blitz'25 held by UET   May '25
Secured **1st place** by solving complex coding problems.

Runner-Up in SOFTEC'25 Programming Competition held by FAST Lahore   Apr '25
170 Programming teams ' hours of coding and secured 3rd position.

Runner-Up in UTS 5.0 Coding Competition   Jan '25
Secured 2nd place by solving challenging algorithmic problems under time constraints.

Position Holder in CodeX Programming Contest   Jan '25
Achieved **3rd place**, solving 5/6 problems, demonstrating strong problem-solving skills.

Winner in ACM Coding Contest   Dec '24
Secured **1st place** by solving complex coding challenges in a high-stake competition.

Runner-up in Speed Coding at MechTech'24   Jan '24
Earned **2nd place** for writing optimized code under extreme time pressure.