Muhammad Tayyab

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https://tayyab01-portfolio.vercel.app/

Introduction

Performance-driven Full Stack Developer skilled in building AI-powered applications. Developed and integrated machine learning models into full-stack web solutions using the MERN stack. Acknowledged for reliability and problem-solving. Proficient in React.js, Node.js, Express.js, MongoDB.

Experience

• Web Developer — CodSoft, Lahore

August 2023- October 2023

- Pitched feature improvements to the developer team, contributing to the enhancement of applications and user experience.
- Developed user interfaces using modern JavaScript frameworks, HTML5, and CSS3, ensuring a contemporary and seamless user experience.
- o Demonstrated the ability to prioritize and solve multiple tasks concurrently.

Teaching Assistant — University of Engineering and Technology, Lahore

October 2023 - April 2024

- Facilitated comprehension of course material for first year students through clear explanations and active engagement.
- Fostered an inclusive learning environment by conveying complex concepts with clarity and collaborating seamlessly with professors and peers.
- Managed grading, student progress tracking, and logistical coordination

Skills

Backend: Node.js, Express.js

Frontend: React.js, Next.js, HTML, CSS, Tailwind CSS

• **Database**: MongoDB, Firebase

• Machine Learning: TensorFlow, NumPy, Pandas, Scikit-learn

Version Control: Git, GitHub, Gitlab

- Tools & Technologies: Docker, Postman, Thunder Client, Firebase, Redux Toolkit, Vercel, Netlify
- Soft Skills: Strong communication, Problem Solving, Leadership, Public Speaking, Project Management, Creativity
- **Others :** Hosting & Deployment

Academic Projects

- Real Time Sign Language Translation to Text and Speech (Machine Learning Project)
 - Developed a real-time sign language translation system using ML & DL models
 - o Implemented CNN, LSTM, RNN, and traditional classifiers for high accuracy.

- Achieved 99.7% accuracy with CNN, 99.3% with Random Forest, and 98.7% with Decision Tree.
- o Built using Python, TensorFlow, OpenCV, and Scikit-Learn for real-time processing
- Github: https://github.com/tayyab-10/Artificial-Intelligence-Lab/tree/main/Final%20Project

Healthcare Data Analysis (Database Project)

- Designed database using MS SQL Server.
- o Frontend was managed using React Js, Ant Design, Tailwind CSS and Redux Toolkit Query (RTK).
- Backend was constructed using Node Js and Express Js.
- o GitHub: https://github.com/tayyab-10/Hospital-Management-System/tree/master

• Teacher Evaluation Assistant (Database Project)

- Established database using MS SQL Server.
- Frontend was done using Winforms.
- Backend was executed using C#

Mini-Excel (DSA Project)

- Created a mini-excel tool utilizing advanced data structures and algorithms in C++.
- Supported spreadsheet operations including cell computation and data visualization using Quadruple Linked List.
- GitHub: https://github.com/tayyab-10/Mini-Excel

Notepad (DSA Project)

- Developed a notepad application focusing on efficient data structures and algorithms in C++.
- Enhanced text processing and management functionalities using Doubly Linked List.
- GitHub: https://github.com/tayyab-10/Notepad

Flight Reservation System (OOP Project)

- Engineered a flight management system using Object-Oriented Programming principles such as Polymorphism,
 Inheritance, Association/Composition, Abstraction and Encapsulation.
- Frontend was built in Winforms.
- Backend was constructed in C#
- GitHub: https://github.com/tayyab-10/2nd-Semester-Final-Projects-

Self Projects

Campus Link (Full-Stack AI-Driven Application)

• Developed Campus Link, a platform for society & event management

- Enabled Ai-Driven event creation, Automated task assignments, and feedback collection.
- Built using React.js, Node.js, Redux, MongoDb, and Firebase.
- Implemented real-time updates & user role management for societies.
- GitHub: https://github.com/tayyab-10/Campus-Link

Centralized Club Management System (MERN Project)

- Built a Centralized Club Management System for streamlined club operations.
- Enabled event scheduling, member management, and task delegation.
- Developed using React.js, Node.js, Express.js, MongoDB, and Redux Toolkit query.

NoteVault (MERN Project)

- Established database using MongoDB Compass.
- Frontend was done using React.js, Context API, Material UI, AntDesign
- Backend was executed using Node.js and Express.js.
- GitHub: https://github.com/tayyab-10/Note-Vault/tree/master

DocuVerse (MERN Project)

- Established database using MongoDB Compass.
- Frontend was done using React.js, Context API, Material UI, Ant Design, Tailwind CSS
- Backend was executed using Node.js, Express.js and Socket.io
- GitHub: https://github.com/tayyab-10/DocuVerse/tree/master

• Flixify (React Js Project)

- Initiated a platform to view detailed information about movies, including ratings, runtime, genres, and release date
- App was made using React Js, Material UI, Tailwind CSS, ALAN AI and Redux Toolkit Query (RTK).
- API used themoviesdbapi for fetching movies and handling user authentication.
- Live Preview : Flixify

HeadlineHub (React.js Project)

- Frontend was done using React.js, BootStrap
- Fetched news from an external API
- GitHub: https://github.com/tayyab-10/HeadlineHub-/tree/master

Education

- University of Engineering and Technology, Lahore
 - BSc Computer Science Expected in September 2026
- Ideal Group of Colleges, Sheikhupura
 - **-** *FSc Pre-Engineering* **(2020 − 2022)**
- Punjab Public School
 - Matric (2018 2020)

Achievements and Certifications

- Certified Software Engineer IBM
- Certified React.js Developer META
- Certified SQL Developer HackerRank-Advanced
- JavaScript-Intermediate HackerRank
- Co-Director Google Developer Group on Campus

University of Engineering and Technology, Lahore

- Led the **Development Team**, managing technical projects and mentoring students.
- Collaborated with industry experts to host tech talks and hands-on coding sessions.
- Guided students in open-source contributions and hackathon participation.
- Public Relations Executive, ACM Student Chapter

University of Engineering and Technology, Lahore

- Managed **external communications** and built partnerships to enhance ACM's visibility.
- Organized and promoted tech events, seminars, and coding competitions on campus...
- Collaborated with teams to drive student engagement and community growth.
- Event Organizer, Department of Computer Science

University of Engineering and Technology, Lahore

- Spearheaded the organization of ITEC 2025, the flagship event of the department, along with Dev-Connect 2025 and All Sessions Get-Together 2025.
- Managed event planning, coordination, and execution, ensuring smooth operations.
- Table Tennis Champion | Rival Champs Tournament 2025
 - Secured 1st place in the Rival Champs Table Tennis Tournament held at Department of Computer Science, UET Lahore.
 - o Competed against top players, demonstrating strategic gameplay, agility, and resilience.

Languages

Urdu : Native

English : IntermediatePunjabi : Fluent