

Rai Tabish

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Skills

- Python | Java | JavaScript | TypeScript | Solidity | C++ | C | MySQL | Node | Express | React | NoSQL | Git | GO | HTML | CSS | PyMC3
- AWS | Azure | Airflow | ETL Pipeline | Blockchain | WebScraping | llama | OpenAI | CI/CD | Unit Testing | OOP | Unity | Docker | DSA | Figma
- Kali Linux | Bash | Pytorch | LangChain | Statistical Modeling | Tensorflow | OpenCV | MLOPS | GenAI | NLP
- English, Urdu

Education

Bachelor of Computer Science **FAST NUCES** **Islamabad, Pakistan** **09/2021 - 04/2025**

Work Experience

Technology Program Intern **Knodemy, Islamabad** **09/2024 - 1/2025**
Full Stack

- **Designed, Developed, and Deployed** an in-house Learning Management System using the MERN stack (MongoDB, Express.js, React, Node.js) and AWS services, significantly enhancing platform scalability and performance.
- **Collaborated with Students** to identify and address distractions by integrating a compiler and Scratch programming environment, thereby improving user engagement and the overall learning experience.

CS Lab Demonstrator **FAST-NUCES, Islamabad** **01/2022 - 3/2023**
Programming fundamentals

- **Conducted and Managed** weekly lab sessions for over 50 students in the Programming Fundamentals (C++) course, ensuring comprehensive understanding and hands-on practice of core programming concepts on linux environments.
- **Earned Consistently Positive Feedback** from students by effectively communicating complex topics and providing personalized support, thereby was offered the lab for the fall session in next semester too.

Freelance Software Developer **AVVA Dynamics, California** **03/2023 - 01/2024**
Computer vision

- **Designed and Developed an Advanced Surveillance System** integrating thermal cameras, telescopes, and standard cameras using SDKs. Spearheaded the implementation of object detection algorithms, enhancing real-time monitoring accuracy and system responsiveness.
- **Led a Development Team** for the Coin612 camera project, coordinating the seamless integration of hardware and software components. Ensured project milestones were met on time, resulting in a robust and reliable surveillance solution.

Projects

DataKaleidos: AI-Driven CPG Data **LinkedIn** **03/2024**
IntelligencePlatform(FYP)

- Automated the creation of a dynamic knowledge graph using Llama 3, organizing and connecting self scraped knowledge rich CPG data for seamless insights and intuitive querying.
- Built a scalable ETL pipeline leveraging Apache Airflow to automate data extraction, transformation, and loading, streamlining data integration.
- Developed GraphRag, an AI-powered system that uses advanced NLP to provide natural language querying capabilities, with the knowledge graph serving as its core data backbone.

Blockchain Assistant **GitHub** **11/2024**

- Developed a lightweight, CPU-optimized assistant using a quantized Llama 2 model. The model is fine-tuned on a Blockchain book to answer domain-specific questions efficiently on devices without GPU support.

Food Slicer: 3D Unity Game	GitHub	11/2023
<ul style="list-style-type: none"> Designed and Developed an interactive 3D food slicing game using Unity and C#, incorporating custom-designed 3D models from Blender. Enhanced player experience through responsive controls and high-quality graphics, ensuring smooth and enjoyable gameplay for users of all ages. 		
Genetic Algorithm Timetable Optimization	GitHub	04/2023
<ul style="list-style-type: none"> Developed and Implemented a Genetic Algorithm-based system to optimize university timetables, effectively minimizing conflicts in course assignments, room allocations, and professor availability by leveraging techniques such as crossover, mutation, and adaptive penalty adjustments. 		
SocioSphere: Society Management System	GitHub	12/2022
<ul style="list-style-type: none"> Engineered an interactive Society Management System with ER diagrams, using SQL, Oracle, ASP.NET, CSS, and HTML. Integrated robust database concepts and advanced web programming to optimize society management and administration efficiency. Designed and implemented in accordance with design patterns. 		
Urban Drive: Car Rental Website	GitHub	03/2024
<ul style="list-style-type: none"> Utilized HTML, CSS, JavaScript, and ReactJs to create a visually appealing and user-friendly interface for the car rental platform. Implemented dynamic content loading and form validation to optimize user interaction and ensure data accuracy throughout the booking process. 		
Activities & Achievements		
<ul style="list-style-type: none"> Volunteer: Helping Knodemy deliver computer lessons to underprivileged student of pakistan in remote areas (9/2024) Dean's List - FAST NUCES Islamabad (Spring 2025) Organizer: Lead in organizing the 2023 university orientation for the new batch. (10/2023) Best Bait Bazi: Received this by Bazm-e-Paigham Rawalpindi with over 50+ colleges participating. (01/2019) Best Urdu Debater: Inter-college debating competition with the topic of 'Education Builds the Nations'. (05/2013) Head of Sponsorship- FAST Computing Society: Oversaw the sponsorship team for computing events. Communicated with companies to collaborate on events. (01/2022-08/2023) Head Urdu- FAST Literary Society: Oversaw the planning and execution for urdu literature events. (08/2021-06/2023) 		
Certifications		
Google AI essentials	Google	04/2024
Intermediate SQL	DataCamp	07/2024
Neo4j Fundamentals	GraphAcademy	08/2023
Understanding Microsoft Azure	DataCamp	08/2024
Programming with JavaScript	Meta	09/2024
AWS Fundamentals Specialization	AWS	In-Progress
Machine Learning Specialization	Stanford	In-Progress