

Roha Arslan

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Education

COMSATS UNIVERSITY

BS in Software Engineering, CGPA: 3.29

Lahore
July 2025

Relevant Coursework: Programming, Machine Learning, Data Structures and Algorithms, Artificial Intelligence, Introduction to Probability & Statistics, Multivariable Calculus, Numerical Computing, Data Warehouse & Mining, Computer Vision

KINNAIRD College for Women

Intermediate in Computer Science, A+

Lahore
July 2021

Divisional Public School

Matriculation, A+

Lahore
July 2019

Experience

DWP Group

Software Engineer Intern

Lahore
May 2025-Present

- Working on full-stack development for enterprise applications (AI and Multitenant products), including frontend, backend, and API integration.
- Testing and debugging complex workflows, ensuring smooth user experience and reliable system performance.
- Creating prototypes, updating documentation, and designing flowcharts for multi-tenant and HR application features.
- Implementing UI/UX enhancements, styling updates, and responsive design improvements.
- Researching emerging technologies and third-party integrations to enhance application capabilities.

Tech Cynosure

Junior Python Developer

Remote
Dec 2024- May 2025

- Built a modular AI voice assistant for hotel management, adaptable for kiosks and smart terminals, with online and offline modes.
- Designed a dynamic API engine using a centralized brain configuration to avoid hardcoded logic and support flexible workflows.
- Integrated multiple lightweight LLMs (GPT-2, GPT-Neo, BLOOM) and tested for speed, accuracy, and structured output (e.g. JSON).
- Added AIML fallback for basic offline interactions and ensured persistent user intent handling in multi-step conversations.
- Enabled natural voice interaction using faster-whisper (speech-to-text) and eSpeak (text-to-speech).
- Developed a customizable assistant builder that generated full configurations based on defined context, reducing setup time.
- While working on an API sync tool, Elicited system requirements and integration documentation to design seamless API interactions with external platforms like QBO and OrderTime.

- Developed and tested backend endpoints for a JavaScript-based sync tool that connected multiple platforms for automated data flow.
- Created custom service layers, polling workers, and job schedulers to manage real-time and periodic data synchronization.
- Implemented a polling mechanism to fetch updated Service and Job data, filtering for confirmed orders and processing them accordingly.
- Extended functionality to push transformed sales orders to OrderTime, ensuring proper formatting and structure based on its API.
- Integrated financial data by fetching payment details from QuickBooks and triggering payment fulfillment in OrderTime, maintaining transactional consistency.

SKMCH&RC
Biomedical Engineering Intern

Lahore
(1 month) July 2024

- Gained hands-on experience with a variety of medical equipment and machines.
- Performed analysis, calibration, and validation of medical devices.
- Worked first-hand with modules, ECG machines, and patient monitors etc.
- Worked on a customized temperature and humidity monitoring device.
- Familiarized with standard operating procedures and safety protocols in a clinical setting.
- Collaborated with healthcare professionals to ensure optimal functionality of medical equipment.

Upwork
Freelance Article Writer

Lahore
Nov 2023 - March 2025

- Produce high-quality articles for diverse clients.
- Collaborate with clients to understand content needs.
- Generate original content on relevant topics.
- Demonstrate SEO optimization skills for improved visibility and reach.

Regular Writes
Article Writer

Lahore
May – July (2023)

- Crafted engaging articles on ML and AI, making complex ideas accessible to a broad audience.
- Conducted in-depth research for accurate and valuable content.
- Worked closely with editors and peers to maintain high content standards.
- Ensured polished, publication-ready pieces.
- Adapted to different subjects and styles.
- Contributed to platform growth with timely, resonant articles.

Leadership and Projects

Google Developers Student Club, CUI
Deputy Director Content Writing

Oct 2022 – Feb 2023

Designed the content strategy for GDSC, overseeing the creation of high-quality technical and educational articles. Collaborated with a group of content creators to produce articles that encouraged technology, literacy and motivated other students to follow current business trends. Served as a mentor, offering advice and critique to young writers, and promoting a culture of constant progress.

COMSATS Lahore Debating Society
Media Publications Officer

April 2023 – July 2024

Developed and administered intriguing content for websites, newsletters, social media channels, and other digital platforms, thereby significantly boosting society's online presence and participation. Designed promotional materials to market debating events and workshops, contributing to increased participation and attendance. Collaborated with the society's executive team to develop and execute strategic communication plans, ensuring consistent and effective communication with members and the broader student community.

Projects

- **“AROUQ ”Blood Donation App** | React Native | Redux | Firebase | Google Maps API |MongoDb Compass
- **Chatbot** | Python | Neo4j
- **Pacman (reflex based)** | Python.
- **Practice Responsive Web Application** | React | CSS | JavaScript.
- **Handwritten Digit Recognizer** | Python | TensorFlow | Matplotlib | ML
- **Simpletron** | C
- **Practice Responsive Webpages** | HTML | CSS.
- **Hospital Management System** | Java | MySQL | Figma
- **Sudoku** | C++ | .NET
- **Snake Game** | C++.
- **Educational Institute Management System** | Java
- **Tic Tac Toe (Single Player)** | C
- **“APNA CALENDAR” (personalized calendar)** | C

Skills & Interests

Technical: C| C++| Java | SQL | MySQL | Figma | HTML| ML| AI | NodeJS | React | JavaScript | Python | Neo4j

Language: English | Urdu

Laboratory: DSA Concepts | OOP Concepts | Lt Spice | Proteus | Operating System Concepts | Balsamiq | ML