Sadaqat Rasool

🗣 Mianwali, Punjab, Pakistan

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Career Objective

Driven **Python developer** and passionate **problem solver**, focused on building real-world solutions through technology. Skilled in full-stack development (MERN stack) and experienced in data analysis. Committed to solving complex challenges with efficient, practical, and innovative approaches — as demonstrated in projects like an end-to-end Sudoku game with leaderboard and solver, an interactive Graph Bridge analyzer, and a full-stack Farm Management System.

Education

Namal University Mianwali

Bachelor of Science in Computer Science Relevant Coursework

- Object-Oriented Programming
- Data Structures
- Databases

- Analysis of Algorithms
- Operating Systems
- Software Engineering

Skills Summary

Languages: Python, SQL, HTML, CSS, JavaScript

Technologies & Libraries/Frameworks: MERN Stack (MongoDB, Express.js, React.js, Node.js), Tailwind CSS, REST APIs, Tkinter, Pandas, NumPy, Matplotlib, Seaborn

Platforms & IDEs: Replit, Google Colab, Jupyter Notebook, VS Code, Git/Github, PyCharm, MySQL

Design & Modeling Tools: Figma, Draw.io, PlantUML, Microsoft Visio

Soft Skills: Problem Solving, Analytical Thinking, Project Coordination, Mentorship, Effective Communication **Projects**

Farm Management System (FYP) | MERN Stack Web App

- Built a farm management platform to help small-scale farmers digitize operations for crops, livestock, and resources.
- Developed custom modules for task reminders, crop and livestock tracking, and multi-store resource management.
- Integrated an in-app chatbot assistant powered by real-time farm data to answer user queries contextually.
- Implemented interactive report builder to export crop/resource summaries as downloadable PDFs using jsPDF.
- Used MERN stack with secure user authentication (JWT) and email verification (Nodemailer).

HD YouTube Downloader | Python, Tkinter, yt-dlp, FFmpeg

- Engineered a desktop application to download HD YouTube videos with best audio-video merging using FFmpeg.
- Built a GUI with Tkinter, featuring URL input, folder selection, and a live progress log with threaded execution.
- Handled errors gracefully and integrated features like multi-link input, real-time status updates, .exe packaging.

$\textbf{Cryptic Messenger} - \textbf{Secure Message Encryption Tool} \mid \textit{Python, Tkinter}$

- Developed a fully offline encryption/decryption desktop tool using a custom-built algorithm with multi-layered key rotation and character masking.
- Designed an intuitive GUI with real-time validation, clipboard integration, message length control, and automatic input sanitization.
- Handled all encryption logic manually no external crypto libraries used delivering a self-contained, secure, and lightweight messaging utility.

Facebook Social Network App ~|~ Python, GUI, Excel, openpyxl

- Built a full-featured desktop social network app replicating Facebook-like functions: user accounts, posts, comments, messaging, and friend system.
- Added messaging, notifications, and privacy like blocking, post visibility control, and friend request management.
- $\bullet \ Used \ Excel via \ {\tt openpyl} \ to \ handle \ all \ user \ data, \ messages, \ and \ interactions \ in \ a \ structured, \ persistent \ format.$

Volunteering

Volunteer Teacher

NAMAL Education Wing

• Volunteered with the NAMAL Education Wing (NSSI) to provide free education to children from underserved communities. Designed and delivered lessons to build foundational knowledge and confidence. Focused on empowering students through personalized learning and mentorship. Created a positive, supportive environment to promote academic growth.

Mar 2025 – Apr 2025 g using FFmpeg.

Mianwali, Pakistan

Nov 2021 – Jun 2025

- Data Analysis and Visualization
- Web Application Development

Oct 2024 – Jun 2025

g using rrmpeg.

May 2022 – Jul 2022

Dec 2023 – Jan 2024

Nov 2021 – Jan 2022 Namal University Mianwali