

Hanzala Bhutto

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Objective

Software Engineer with a proven ability to adapt in solo and collaborative environments while focused on achieving high-quality results. Eager to obtain a **WerkStudent/Praktikum position as a Software Engineer** where I could further improvise and showcase my skills.

Education

- MS Distributed Systems Engineering**, Technische Universität Dresden Dresden, Germany
Oct 2024 – Present
- **Salient Courses:** Transactional Information Systems, Ubiquitous Systems, System Design, Distributed Systems
- BS Software Engineering**, FAST NUCES Karachi, Pakistan
Sept 2020 – June 2024
- **CGPA:** 3.78/4.0 (1.3 German Grade)
 - **Salient Courses:** Object Oriented Programming, Data Structures, Algorithms, Operating Systems, Database Systems, Software Design, Computer Networking, Web Engineering, DevOps
 - **Achievements:** 7x Dean's list, 1x Rector's list, Magna Cum Laude, Silver Medalist.
 - **Societies:** FAST Data Science Society Core Team Member

Experience

- Software Engineer, Goodcore** (Full-Time) Karachi, Pakistan
July 2024 – Nov 2024
- I worked on "**Briefing Source**". My main responsibilities included:
 - Developed AI-powered chatbots using LLMs, enhancing task efficiency for 60+ enterprise clients.
 - Integrated Laravel APIs as a knowledge source for LLMs, ensuring fact-based intelligent answers.
 - Designed optimized DB stored procedures in PostgreSQL, reducing API latency by 30%.
 - Implemented Redis-based caching mechanisms, achieving a 20% improvement in system performance.
 - Deployed AI service using Docker, streamlining production deployments.
 - Attended Daily Sync-Up Meetings to discuss the tasks and receive critical feedback.
- Tech Stack:** Python, Flask, Fast, PHP, PostgreSQL, Redis, AWS Bedrock, Docker, Bitbucket
- Junior Software Engineer, Trafix** (Full-Time) Karachi, Pakistan
June 2024 – July 2024
- I worked on a Stock Trading Application. My main responsibilities included:
 - Enhanced the global trading platform supporting equities and options.
 - Customized user interfaces, including layouts, hotkeys, and data displays, improving client satisfaction.
 - Contributed to the development of multi-client server applications, enabling real-time scalability.
- Tech Stack:** C#, C++, Priority Queues, SQL, Multi-Client Server Architecture.
- Software Engineer Intern, One Technology Services** (Full-Time) Karachi, Pakistan
June 2023 – Sept 2023
- I worked on "**Derouze**" and "**Dukaan**". My main responsibilities included:
 - Revamped frontend components for two platforms, improving UI performance by 25%.
 - Managed UI state using MobX, ensuring seamless real-time updates across components.
 - Consumed Backend APIs on Frontend to display dynamic data on the application UI.
 - Wrote Technical Documentation and fixed Bugs.
- Tech Stack:** HTML, CSS, Javascript, Typescript, Angular, MobX, Ant Design.

Projects

- Multi-Client Based Server Application** June 2024 - July 2024
- Engineered a socket programming-based server to manage concurrent sessions for multiple clients.
 - Enabled clients to send messages and large files (up to GBs) to the server simultaneously.
 - Utilized queues at both ends to handle incoming packets efficiently.
- Tech Stack:** C++, Object Oriented Programming, Asio.io
- Proctowise (Final Year Project)** Oct 2023 - May 2024
- Designed a customized evaluation and proctoring platform for online coding competitions.
 - Integrated Judge0 for code evaluation, Firebase for image uploading, and Face API for image processing.
 - Deployed the Front-end on Vercel and the Back-end on Azure.
- Tech Stack:** Typescript, React, Next.js, Node, Nest.js, MongoDB, NoSQL, Firebase, Face API, Judge0, Git, Azure

Chat To Your Database

Nov 2023 – Dec 2023



- Implemented NLP-based application enabling intuitive interaction with databases using natural language.
- Leveraged LangChain, SQL Agents, and LLMs for read/write database operations based on SQL schema.

Tech Stack: Next.js, Nest.js, PostgreSQL, SQL, OpenAI, Langchain, Git, Docker

Multi-Disease Prediction System

Apr 2023 – May 2023



- Built a web-based predictive model for disease diagnosis using user-provided symptoms.
- Integrated machine learning algorithms for accurate disease probability prediction.

Tech Stack: React, Express, MySQL, Python, Support Vector Machine, Logistics Regression

Technical Skills

Programming Languages: Python, Java, Javascript, Typescript, PHP, C, C#, C++

Frontend: HTML, CSS, React, React-Native, Next, Angular

Backend: Node, Express, Nest, Laravel, Flask, FASTAPI

Databases: PostgreSQL (SQL), Firebase, Oracle (SQL), MySQL (SQL), MongoDB (NoSQL)

Other Tools: Git, GitHub, Bitbucket, Docker, Redis, Generative AI, LLMs, Postman, Azure, AWS Bedrock, Software Documentation, Agile Methodologies.

Soft Skills

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|---------------------|------------------------------|-----------------------|
| • Problem Solving | • Teamwork and Collaboration | • Adaptability |
| • Critical Thinking | • Self-Reliance | • Attention to Detail |

Language Skills

English C1

German A1

Certificates

Introduction to Large Language Models, Google Cloud	Aug-2024
Introduction to Generative AI, Google Cloud	Aug-2024
Docker Training Course For The Absolute Beginner, KodeCloud	Oct-2023
Version Control, META	Jun-2023
Introduction to Mobile Development, META	Jun-2023
Developing Front-End Apps with React, IBM	Apr-2023
React Basics, META	Apr-2023
Programming With JavaScript, META	Apr-2023
The Complete Web Developer in 2023, Zero to Mastery	Jan-2023
Data Structures + Algorithms, Zero to Mastery	Sept-2022
Python Fundamentals Track, DataCamp	Feb-2022