

Contact

hassanqa13@gmail.com

www.linkedin.com/in/hassan-rauf-butt (LinkedIn)

Top Skills

FastAPI

Tailwind CSS

MySQL

Certifications

Dart Clean Code: Writing High-Efficiency, Maintainable Dart Programs

Java

Data Science Orientation

Data Visualization

C ++

Hassan Rauf Butt

Backend Engineer | AI & Automation Enthusiast | FastAPI, PostgreSQL | Flutter Developer | Building Scalable & Intelligent Systems

Germany

Summary

I have a strong background in software engineering, with a BSCS degree from NUCES and multiple certifications in programming, AI, and Linux. I started my career as a software engineer at Sofstica, where I spearheaded the development of a Flutter mobile app from an Adobe Xd design, implementing MVVM architecture, multi-lingual functionality, and efficient search mechanism. I also contributed to the entire software development life cycle, from requirements gathering to deployment, and optimized app performance and usability by proactively resolving inefficiencies and bugs.

I am driven by a passion for innovation, learning, and sustainability in software development. I scout talent, nurture a culture of learning, and form strategic alliances with other firms and stakeholders. I put clients first, prioritize ethical practices, and embrace sustainability in our operations and products. I am proud of the reputation and partnerships we have built at TritexX, and I look forward to continuing to push boundaries and ensure a bright future in software development.

Experience

mylantech GmbH

Working student AI/ Algorithms

February 2025 - Present (6 months)

Munich, Bavaria, Germany

At Mylantech, I engineered end-to-end solutions that fused backend development, data engineering, and AI. I built scalable FastAPI & PostgreSQL systems, automated CI/CD pipelines with Docker and GitHub Actions, and designed robust data pipelines for large-scale analytics. I developed advanced forecasting models (XGBoost, LightGBM, SARIMA, Prophet) with dynamic ensembling, improving prediction accuracy by 30%. Additionally, I integrated

LangChain agents for natural language to SQL workflows, enhancing the platform's conversational AI and data exploration capabilities.

- Engineered scalable, production-grade backend services using FastAPI and PostgreSQL, powering AI-driven analytics and automation across the Predictivo platform.
- Developed an intelligent FastAPI-based system to transform natural language into optimized SQL queries on DuckDB, enabling seamless, code-free data analysis with integrated validation, critique, and explanation agents.
- Conducted detailed seasonality, trend, and autocorrelation analyses, leveraging STL decomposition and AR processes to identify patterns and optimize time series forecasting strategies.
- Fetched, cleaned, and integrated over 500+ economic and product indicators from diverse international sources, building rich datasets that powered advanced predictive models and multi-variable time series analyses.
- Created robust forecasting workflows using XGBoost, Prophet, and SARIMA, delivering reliable 18-month predictive analytics across product verticals.
- Automated deployment pipelines using Docker,, and GitHub Actions while standardizing and cleaning data from 10+ disparate sources, resolving schema and timestamp inconsistencies and boosting downstream model readiness by 60%.

Migrando

Software Engineer (Working Student)

April 2024 - September 2024 (6 months)

Cottbus

Developed a secure email management app using FastAPI and React, improving email access speed by 30% through real-time IMAP synchronization. Implemented asynchronous retrieval and enhanced efficiency by 40%, while ensuring security with two-factor authentication.

- Built a dynamic resume builder app using React, enabling users to input personal details and select customizable design templates, reducing resume creation time by 20% and increasing user engagement by 35%.
- Developed a password-protected email management app using React and FastAPI, boosting email access speed by 30% through real-time IMAP synchronization and automation.

- Automated email retrieval with imaplib, implementing a polling system that improved efficiency by 40% while enhancing security with password protection and two-factor authentication.

Technology Stack : React, FastAPI, Tailwind CSS, MySQL, imaplib, JavaScript, HTML, CSS , Github Actions , Workflows.

Deutsches Forschungszentrum für Künstliche Intelligenz (DFKI) STUDENT RESEARCH ASSISTANT SCIENTIST

February 2024 - August 2024 (7 months)

Bremen, Germany

Developed scalable backend systems using FastAPI and MongoDB, optimizing image processing with asynchronous programming. Enhanced AI-driven task scheduling with Google OR tools and contributed to open-source tools for Reinforcement Learning in robotics.

- Developed a user interface using TypeScript and Svelte, improving data acquisition efficiency by 20% in Project SeMoSys.
- Contributed to the development of open-source map annotation tools for Reinforcement Learning applications in robotics (ongoing project) .
- Built an asynchronous image upload and retrieval system using FastAPI and MongoDB's GridFS, reducing image processing time.
- Enhanced system responsiveness through asynchronous programming in Python, supporting increased concurrent image requests.

Technology Stack : Svelte, TypeScript, FastAPI, Python, MongoDB, Web Sockets, Docker, CI/CD (GitHub Actions),Workflows.

Sofstica

Software Engineer

October 2022 - September 2023 (1 year)

Karāchi, Sindh, Pakistan

At Sofstica, I led the development and optimization of user-centric mobile and backend solutions, integrating wearable device data, predictive analytics, and self-care tools, while automating CI/CD pipelines to improve deployment efficiency and data security.

- Revamped application design to enhance user experience, integrating features such as predictive analytics,behavioral insights tracking, and real-time health monitoring from over 300+ wearable devices.
- Owned features end-to-end, from design to implementation, ensuring seamless integration and high-quality delivery.

- Achieved a 40% reduction in development cycle time and a 30% boost in team productivity by optimizing deployment processes and improving resource utilization.
 - Improved bug detection efficiency by 60% through unit and integration tests, ensuring app stability.
 - Automated CI/CD pipelines using GitHub Actions, incorporating multi-environment workflows, code quality gates, and security scanning to ensure high-quality releases.
 - Optimized deployment processes with Fastlane integration, enabling seamless app releases to the App Store and accelerating time-to-market.
- Technology Stack: Flutter , Dart , GitHub Actions, Fastlane, Stream Chat, Firebase , Workflows

NETSOL Technologies Pakistan

Software Engineer 1

July 2022 - September 2022 (3 months)

Karāchi, Sindh, Pakistan

As a team member of the development team, my responsibilities include:

- Attended finance domain training of company product. Moreover other trainings attended like Client-Side development(Angular.js) , Cache Management , Exceptional Handling, .Net , WPF.

VentureDive

Flutter Intern

January 2022 - April 2022 (4 months)

Karāchi, Sindh, Pakistan

Created a responsive movie application that featured a highly scalable searching mechanism using BLOC, CUBIT, and STREAMS for state-management

Completed a rigorous Flutter state-management training program with VentureDive, further enhancing my skills and knowledge

Successfully developed a society management application using simple yet effective state-management techniques

Worked collaboratively with a cross-functional team to create innovative UI/UX solutions for the Employee Management module of a mobile application

Utilized strong problem-solving and analytical skills to implement a range of functionalities and ensure high-quality deliverables

Demonstrated excellent communication and teamwork abilities to ensure seamless collaboration and project success.

Digitaez

Flutter Developer

August 2021 - September 2021 (2 months)

Karāchi, Sindh, Pakistan

- Developed a responsive , scalable crowd source data collection mobile application using flutter.
- Developed scalable Restful web services for crowd sourcing application.
- Developed a Photo / Video Editing mobile application using flutter which handles animated sticker.

Alphas tech

Flutter Intern

July 2020 - November 2020 (5 months)

Lahore, Punjab, Pakistan

- Learned and worked to make UI using Flutter under the supervision of Mobile Developer Expert.
- Designed, Developed and troubleshoot in Android application using flutter.
- Learned to develop and architected flutter mobile applications.
- Participated in brainstorming sessions to gather the features to apply in prototype iterations.
- Utilized agile development methodology.

Jaffer Brothers (Pvt) Limited

Intrnee

August 2019 - August 2019 (1 month)

karachi

- Learned the technique to run the reports.
- Collaborated with development team and monitored performance of the reports
- Analyzed and compare before and after tuning of reports

-Prepared the timings logs of the reports

Skill Orbit (Pvt.) Ltd.

Internship Trainee

July 2019 - July 2019 (1 month)

Karachi

-Learned to install JazzSM software.

-Learned to make Dashboard and to analyze data.

-Developed Power Point presentation.

-Demonstrated punctuality by starting shift at 9 am every day and achieved 95% attendance.

Education

National University of Computer and Emerging Sciences

Bachelors of Computer Science, Computer Science · (2018 - 2022)

Commecs College

INTERMEDIATE, SCIENCE · (2016 - 2018)