

Muhammad Hamza Asad

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📍 Karachi, Pakistan

🔄 DerivativeOfPiX

in Hamza Asad

👤 Profile

As a generally curious software engineer, I am always looking for novel ways to optimize real-world problems and solve them with code. I have a proven track record of collaborating with cross-functional teams, ranging from design to management, to create high-quality applications and iteratively improve them upon feedback. I am dedicated to building solutions that scale well, both for the team and for the end-user. Let's connect and explore how I can drive your team's success.

🎓 Education

A Levels,

Army Public School and College

Karachi, Pakistan

Local equivalency : 86.75%

B.S Computer Sciences,

Habib University

08/2020 – 12/2022

Karachi, Pakistan

📁 Professional Experience

Fullstack Developer, Farmevo.ai

06/2023 – 09/2023 | Karachi, Pakistan

- Proficiently utilized React.js to design and implement responsive and reusable components for the application.
- Seamlessly integrated the frontend portal app with the Hasura engine, enhancing its functionality and performance.
- Implemented a user-invitation feature, enabling team collaboration within the application.
- Effectively set up and employed GraphQL for efficient communication between the frontend and backend systems.
- Ensured optimal performance and data consistency by implementing caching mechanisms.
- Utilized Hasura to architect data models and establish secure role-based access controls.

Associate Software Engineer, Elphinstone Inc.

11/2021 – 05/2023 | Karachi, Pakistan

- Developed and deployed multiple websites from scratch using WordPress, Elementor, and EC2.
- Collaborated with a cross-functional team to design, develop, and deploy multiple responsive single-page applications using ReactJS.
- Built a REST API using Nestjs to interface with the aforementioned frontend applications and implemented a service-oriented architecture.
- Designed and developed an algorithm to read and process VPS contributions for hundreds of employees from multiple companies, taking into account their previous pending payments and tracking them by each fund.
- Orchestrated and streamlined the KYC process as a long-running workflow in Temporal Engine using GoLang, incorporating strategies such as exponential backoff and working with legacy SOAP-based APIs.
- Architected a new product from scratch based on the microservices design philosophy, ensuring each service had separation of concerns and was not directly dependent on others.
- Collaborated with a cross-functional team to develop a React Native application and fully integrated it with ORY, ensuring a smooth user experience and secure access to sensitive information.
- Researched and deployed an API gateway to serve as a reverse proxy to the services and created a template API in Express to serve as a reference point for each service.
- Integrated ORY as the primary identity and access control solution.
- Streamlined the deployment process for multiple projects to ECS and EKS by creating and optimizing CI/CD pipelines, leveraging Github Actions to automate build, test, and deployment workflows.

IT Manager, Suxxede Inc.

06/2019 – 09/2020 | Karachi, Pakistan

- Developed and maintained websites and networking infrastructure.
- Collaborated with lead management to create a pipeline for managing and keeping track of pharmaceutical imports.
- Utilized PHP and Python for frontend and backend development respectively.

Soft Skills

- Communication
- Problem Solving
- Adaptability
- Attention to detail
- Critical thinking

Hard Skills

Frontend

ReactJS, Tailwind, WordPress,
React Native, Flutter, Vue.js

Backend

NextJS, NestJS, GoLang,
Express, Python, NodeJS,
GraphQL, REST, SOAP

Deployment

EC2, ECS, EKS, Github Actions,
Netlify, Terraform, Heroku

Scripting

Python, bash / zsh, Linux, Git
CLI, AWS CLI, kubectl

Others

Unity, Godot, SDL, HLSL, C++,
C#

- Demonstrated proficiency in the aforementioned programming languages to deliver high-quality software solutions.
- Managed a team of IT professionals to ensure the smooth functioning of IT operations.
- Provided technical support to end-users and resolved issues in a timely and efficient manner.

Projects

Image Compression using Huffman Encoding,

https://youtu.be/QB_3JeoJKPE

2022

As part of a data structures and algorithms course project, I designed and implemented an image compression algorithm using Huffman Encoding in Python. The project involved using the Python Imaging Library (PIL) to read and manipulate the image data and then store it in a Huffman tree. The resulting algorithm was able to compress the image files with minimal loss of quality,

Shehr-ki-sehr

2022

Worked closely with senior-year students to design, and develop a mobile app with features such as safe routes and a rating system for women to assess the comfort level of different locations, enabling women to make informed decisions about their mobility and safety.

Matargashti

2021

Teamed up with a senior-year student to create an interactive website featuring curated content that encompassed the rich tapestry of Karachi, ranging from personalized sounds to written reflections of the author.

Teizro

2020

Developed a proof-of-concept mobile app using Flutter, Google Firebase, and NodeJS that facilitated quick delivery of groceries and medicine. The app enabled sellers and buyers to sign up, with a fully-functional authentication system, and utilized an algorithm to search for registered stores within a specific radius and rank them by ratings. Additionally, the app included a section for riders, which allowed customers to track the rider's location while the delivery was in progress.

Karachi Stories Project

Contributed as a designer and editor to a diverse video series capturing the vibrant daily lives of Karachi's citizens.