

Muhammad Israr

Software Engineer

- I am Muhammad Israr, a Software Engineer specializing in Healthcare technology Ecommerce at Stella Technology. With a comprehensive skill set covering both backend and frontend development, my focus is on pioneering solutions that drive transformative Health Information Exchange (HIE) initiatives while upholding essential standards such as HL7 and FHIR.,With 2 years of experience in both back-end development using NodeJs,NestJs, I bring a solid understanding of software architecture, coding practices, and system design.
- In backend development, I excel in architecting scalable microservices infrastructures using Node.js and Nestjs. My proficiency extends to database management, where I optimize data storage strategies employing PostgreSQL, MongoDB, and MySQL. Additionally, my hands-on experience with Mirth Connect underscores my ability to seamlessly integrate healthcare data, ensuring robust and reliable interoperability solutions.
- I thrive on tackling complex challenges and finding innovative solutions. Whether it's optimizing performance, enhancing user experiences, or streamlining processes, I'm committed to delivering high-quality results.
- I value effective communication and teamwork. My ability to work seamlessly with cross-functional teams ensures successful project outcome.
- Furthermore, I possess a strong command of Continuous Integration and Continuous Deployment (CI/CD) methodologies, ensuring the seamless integration and deployment of software projects across prominent cloud platforms such as Google Cloud Platform (GCP) and Amazon Web Services (AWS).

CORE COMPETENCIES

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|-------------------------|----------------------|
| ▪ Typescript/Javascript | ▪ SQL/MOnGoDb |
| ▪ GCP HealthCare API | ▪ Postgres SQL |
| ▪ NodeJs | ▪ NestJS |
| ▪ OKTA Auth | ▪ AWS Cognito |
| ▪ AWS Lambda | ▪ AWS Secret Manager |
| ▪ Postman | ▪ Swagger |
| ▪ Sonar Qube | ▪ Jira |
| ▪ Python | |

KEY ACCOMPLISHMENTS

Projects



- **VERATO, Stella Technology** **03/2022 – 03/2023**
Outline: Played an important role in building a Back-end Patient module for a Universal Match Patient Index (UMPI), VERATO.
 - Mapped incoming data into real time bar charts and graphs.
 - Developed APIs and handled complex custom logic to handle incoming data.

- **HealtheConnections (HEC), Stella Technology** **03/2023 – 05/2024**
Outline: An application that maps healthcare information based on standards and provides all functionality of an HIE (Healthcare Information Exchange), including features to debug and visualize the flow
 - Event-triggered serverless architecture to handle the incoming message stream.
 - Utilized MPI to retrieve the identity of a person/patient.
 - Utilized data stores such as Big-Query, AWS S3, Postgres DB.
 - Developed NESTJS framework-based backend server, for APIs to interact with multiple datastores.

PROFESSIONAL EXPERIENCE

- STELLA TECHNOLOGY | JR. SOFTWARE ENGINEER** **03/2022 – Present**
- Built cloud-native application utilizing AWS technologies such as S3 for storage solutions along with Lambda functions that reduced operational costs to a significant amount.
 - Developed healthcare message conversion utility for an HIE (Health Information Exchange) that converts HL7 V2 Messages to FHIR standard for a Healthcare giant in New York having millions of transactions a day.
 - Created RESTFUL APIs in NestJS as a back-end server to our UI portal which fetched data from PostgreSQL, GCP Big Query, and an MPI (VERTO) using their SDKs and APIs.
 - Optimized executing time of certain APIs in NestJS by 4 to 6 seconds through better approach and implementation.
 - Configured multiple PostgreSQL databases in NEST project along with the integration of AWS and GCP SDKs for client credential secrets, and Healthcare APIs.
 - Played an important role in the implementation of a Micro Backend architecture in Nodejs/NestJs, breaking down monolithic applications into modular and independent components to enhance scalability and maintainability.
 - Collaborated closely with cross-functional teams to ensure seamless integration of Micro Frontends, fostering a modular approach, and enabling independent development cycles for different teams.
 - Implemented unit tests for major part of the application, where we reduced the cognitive complexity to 40%.

- Utilized NGRX library to effectively manage and store the state of components throughout entire application, ensuring efficient data flow and state management.
- Worked on developing an automated utility tool in python to test conversion of HL7 messages to FHIR resources.
- Assisted manual QA testers and reduced their sanity testing time from a few days to a few minutes by developing an automated utility tool in python for the conversion of HL7 messages.

Emergency Ambulance Booking Android And IOS APP(Flutter)**09/2022- 06/2023**

Developed an advanced Emergency Ambulance Booking app for both Android and iOS platforms using Flutter. The app integrates cutting-edge features such as real-time GPS tracking, instant booking, secure payment processing, and seamless user authentication. Leveraging Flutter's capabilities, the application ensures a smooth and responsive user experience, providing critical emergency services with efficiency and reliability.

EDUCATION

Degrees

Bachelor of Science in Computer Science, University Of Wah, Wah Cantt, Pakistan

09/2019-06/2023

CERTIFICATIONS

- [Programming with JavaScript\(Meta\)](#)
- [Complete Python Course Beginner to Advance \(Udemey
https://www.udemy.com/certificate/UC-55c31fd5-7e0e-4a7a-b676-513d2d93e5a3/\)](#).
- **SQL and PostgreSQL: The Complete Developer's Guide**(Udemy
<https://www.udemy.com/certificate/UC-2410dc88-bb9d-40ea-9d81-3ca591ed7055/>).