

Hamad R

London

Professional Summary

Passionate and results-driven **Software Engineer** with 5+ years of experience in backend development, specialising in **Node.js** and **cloud-based architectures**. Proven track record in optimising API performance, building scalable microservices, and implementing **real-time data solutions** using **AWS**. Currently looking for **opportunities** to apply my expertise in innovative projects and continue my professional growth.

Core Skills

- **Programming Languages:** JavaScript (ES6), TypeScript
- **Frameworks:** Node.js, Express.js, NestJS, React.js
- **Databases:** MySQL, MongoDB, DynamoDB, PostgreSQL, Redis
- **Cloud Services:** AWS (Lambda, ECS, RDS, DMS, S3)
- **CI/CD:** GitHub Actions, Serverless Framework, Docker
- **APIs:** RESTful API design, GraphQL
- **Testing:** Chai, Mocha, Jest
- **Other:** Kafka, Microservices Architecture, Socket.io

Professional Experience

Software Engineer

Deline Media, Lahore | **June 2020 – September 2024**

- Developed a scalable **authentication service** using **Node.js**, acting as an API gateway for EHR modules, enabling auto-scaling through **AWS ECS** and **Docker**.
- Reduced API response time by **over 4x**, optimising key REST endpoints to deliver a **22.2% increase** in user experience.
- Revamped the document workflow across the system using **AWS S3 presigned URLs**, streamlining data management.
- Designed and implemented **Change Data Capture (CDC)** using **AWS DMS** and **Kafka**, ensuring real-time synchronisation of data between **PostgreSQL** and other services, contributing to a **4% increase in revenue**.

- Developed an **E-billing module** compliant with **HIPAA X12 EDI** standards, reducing manual processing by **85%** and expediting claim submissions by **60%**.
- Mentored a team of 6 junior engineers, fostering their growth and contributing to the company's **5% annual growth**.

Junior Software Engineer

QuickBills MD, Lahore | January 2019 – May 2020

- Developed user registration and login systems using **Express.js** and **JWT**, ensuring secure authentication.
 - Integrated **location-based listings**, enabling **1km radius searches** based on user geolocation.
 - Collaborated with a **7-member cross-functional team** to build core functionalities for an EHR product, enhancing collaboration between backend and frontend services.
 - Implemented **CI/CD pipelines** using **GitHub** and **Serverless Framework**, reducing deployment downtime by **20%**.
 - Conducted unit testing with **Chai** and **Mocha**, improving code coverage and performance by **16%**.
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Education

Master's in Computer Science

Northumbria University, London, UK | 2024 – Present

Bachelor's in Computer Science

Virtual University of Pakistan, Lahore, Pakistan | 2018 – 2022

Certifications

- **Web Design and Development - KICS UET Lahore**
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Projects

Authentication Service Backend - Ovada

TypeScript, Express.js, JWT, Redis, MySQL, Sequelize, Axios, Docker

- Built a robust backend service for **Ovada**, serving as a **single authentication source** for the EHR product while acting as an **API gateway** to route authenticated requests.
- Integrated **Redis caching** to minimise database calls, improving the system's efficiency and reducing latency.

- Streamlined authentication for various modules, enhancing **security** and **scalability**.

Patient Management Backend (KIOSK) - Ovada

Express.js, JavaScript (ES6), MySQL, Sequelize, Docker, Swagger, Chai, Mocha

- Developed a **patient management module** from scratch, handling patient data and case flows across the entire **EHR journey**.
- Designed **80+ RESTful APIs** for seamless integration with **iOS** and **web applications**.
- Implemented comprehensive **unit tests** with **Chai** and **Mocha**, ensuring high code reliability.

EDI Health Claim Transactions - Ovada

Express.js, TypeScript, MySQL, Sequelize, Docker

- Built an advanced **e-billing module** using **TypeScript**, facilitating smooth **EDI transactions** like **837P**, **997**, **999**, and **835** for insurance claims.
- Enabled the billing team to process claims **60% faster**, reducing manual input by **85%**.

Scheduler App Backend - Ovada

TypeScript, Express.js, MySQL, Sequelize, Swagger, Docker, Chai, Mocha

- Re-architected a **scheduler module** from **Loopback 3** to **Express.js** with an improved database design, optimising **doctor-patient scheduling** and **appointment management**.
- Developed **130+ RESTful APIs** to support **iOS** and **web applications**, ensuring a **28% increase in code efficiency**.
- Enhanced the module's reliability through **comprehensive unit testing**.

Scheduler ETL - Ovada

Python, PySpark

- Developed an **ETL process** to transform and migrate data between the **old** and **new databases** for the **scheduler module**.
- Utilised **PySpark** to ensure data integrity and streamline data processing in the new infrastructure.

Data Warehouse Backend - Ovada

TypeScript, Node.js, AWS DMS, AWS Kafka, PostgreSQL, Sequelize, Docker

- Set up **AWS DMS** for real-time **Change Data Capture (CDC)**, streaming database changes through **AWS Kafka**.
- Implemented an **ETL service** to process and transform data, ensuring real-time analytics in the **PostgreSQL** warehouse, contributing to a **4% increase in revenue**.

Cron Jobs - Ovada

TypeScript, Express.js, Redis, Docker

- Resolved cron job scheduling issues in a **containerized environment** by implementing a **Redis-based approach**.
- Ensured that cron jobs run precisely on their scheduled times, providing better reliability in the **new server infrastructure**.

Specialty Apps Backend - Ovada

TypeScript, Express.js, MySQL, Sequelize, Docker, Chai, Mocha

- Developed backend services for multiple **specialty applications** (Acupuncture, Chiropractor, Physiotherapy) used in **iOS** apps.
- Generated PDF documents like **1500 forms** for billing, streamlining the claims process.
- Built and maintained **250+ RESTful APIs**, with comprehensive testing using **Chai** and **Mocha**.

Socket Server - Ovada

Socket.io, Express.js, JavaScript (ES6), MySQL, Sequelize

- Developed a **real-time communication** server using **Socket.io** for chat functionality and other webhook-driven features.
- Improved **user experience** through **instant updates** and reliable real-time interactions.

S-Dash Estates Backend App

NestJS, Docker, MySQL, Sequelize, JWT, Swagger, Docker

- Developed a backend service that suggests **property listings** based on user inputs, covering buying, selling, and renting options.
- Built **50+ RESTful APIs** to support dynamic data filtering and provide **customized property recommendations**.
- Integrated **bill estimation features**, allowing users to calculate costs based on input parameters.

Mld-Connect Backend Service

Node.js, TypeScript, Apollo GraphQL, AWS Lambda, AWS DynamoDB, Serverless Framework, AWS SES

- Built a **web-based application** for managing the entire user journey from **COVID test kit purchase to result delivery**.
- Developed **serverless** backend using **AWS Lambda** and **DynamoDB**, ensuring scalability and cost-efficiency.
- Created a comprehensive **admin panel** to manage test kit information and generate user insights.

References

Available upon request.

