

Sheeraz Mehboob Malik

Full Stack Software Engineer

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Profile

I'm a Software Engineer with over 2 years of experience building web applications and conversational AI systems. Skilled in **full-stack development** with **Node.js, React.js, Next.js, TypeScript, and microservices**. I've delivered impactful solutions, including **GenAI-powered assessment chatbots, real-time CI/CD monitoring dashboards, and multi-agent conversational AI systems**. I thrive on solving complex problems, aligning technology with business objectives, and continually learning in this rapidly evolving AI-driven world.

Work Experience

CodingCops

07/2024 – Present | Lahore, Pakistan

Full Stack Engineer

- Developed a **Custom Assessment Builder and Multi-Agent Conversational AI** system using **Node.js, TRPC, Zod, Redux, and ElevenLabs** featuring **schema validation, dynamic agent spin-up, and real-time data retrieval via webhooks** for personalized interactions.
- **Integrated Twilio with AI agents** to handle voice workflows, enabling **automatic call transcription/history capture** and a **fallback mechanism** that rerouted unanswered calls to conversational AI for seamless query resolution.
- Built a **GenAI-powered assessment chatbot** with structured data extraction, resume/cover letter generation, and job portal integration.
- Enhanced UX by integrating **personalized job recommendations** via pulling jobs from TheirStack and preference tracking.
- Conducted **RnD on conversational AI and speech interfaces**, evaluating **Google STT/TTS, Whisper, Deepgram, and AssemblyAI**; implemented speaker diarization and voice-to-voice dialogue systems.
- Researched and integrated multiple Conversational AI platforms (**OpenAI Realtime, OpenAI Assistants API, Google Dialogflow CX, Google Live, ElevenLabs, Custom Chatbot with LangGraph**) to evaluate performance, accuracy, and scalability, selecting optimal solutions for production use.
- Built, dockerized, and deployed scalable **microservices in Node.js**, ensuring efficient communication and seamless integrations.
- Optimized backend workflows, reducing **average processing time from 25s to 7s (72% faster)** through efficient logic and DB optimizations.
- Conducted **performance testing** (Postman, unit tests using jest) to ensure system scalability and reliability under high-load conditions.
- Collaborated cross-functionally to design end-to-end architectures aligned with client goals, consistently delivering ahead of deadlines.

QUESTRA DIGITAL

08/2023 – 06/2024 | Remote

Software Developer

- **Led frontend development** of a CI/CD pipeline monitoring tool, delivering real-time observability for platforms like **ArgoCD, Jenkins, and GitHub Actions**.
- Designed and implemented a **modular atomic design architecture**, improving maintainability, scalability, and future feature integration.
- Developed **real-time dashboards** with **WebSockets and Chart.js**, enabling instant alerts and interactive visualizations for pipeline status.
- Optimized frontend performance with **lazy loading, image optimization, and build-time improvements**, reducing build time by **51% (10.6s to 5.2s)**.
- Built a **Strapi CMS integration** for dynamic content management, aligning user interfaces with business and branding requirements.
- Containerized the application using **Docker**, reducing deployment/setup effort by **40%** and ensuring consistent environments.
- Collaborated closely with stakeholders to **translate business requirements into modern, user-centric UIs**, consistently meeting startup delivery deadlines.

Selected Projects

Webtunes

- Migrated a full-stack music/events app from **React.js** to **Next.js**, implementing **server-side rendering (SSR)** to significantly improve **SEO performance**.
- Built features for **band/event search, venue tracking, and user accounts**, with seamless state management via **Redux**.
- Optimized app performance and SEO, delivering **faster load times and higher search rankings**.

Kuick Reader

- Developed a **PDF-to-readable format web app** using **Node.js, Express.js, MongoDB, and React.js**, enhancing accessibility and user experience.
- Integrated **AWS S3** for efficient storage/retrieval and implemented **OAuth-based authentication** for secure access.
- Improved performance and state management with **Redux**, while **managing workflows with GitHub Issues** for agile collaboration.

News Aggregator

- Built a **Dockerized React.js app** that **aggregated news from multiple sources** (News API, NYT API) with advanced filtering (by source, date, query).
- Enhanced usability and scalability by containerizing deployments and applying **Redux state management** for dynamic content rendering

CenfliX

- Architected and deployed a **cinema ticket reservation system** with **secure authentication** and **session-based access**.
- Implemented **Nodemailer workflows** for signup/forgot-password verification and **PDF ticket generation** for users.
- Built an **admin dashboard** for real-time monitoring of bookings, reviews, and feedback.

Skills

Programming Languages — JavaScript, TypeScript, C++, Java, Python


Web Development — NextJS, ReactJS, Redux, Nodejs, ExpressJS, GENAI, LangChain, Docker, Microservices, Spring Boot, Spring Security, MySQL, PostgreSQL, Mongodb/Mongoose, REST, trpc, Web Sockets, GraphQL, CMS, BootstrapCSS, TailwindCSS, Chart.js

APIs and Integrations — ElevenLabs, OpenAI, VerextAI, Google APIs, Glassdoor, TheirStack, Twilio, Whisper, Deepgram, AssemblyAI, pyAnnote

Education

Bachelors Of Science In Computer Science

09/2020 – 06/2024

National University of Computer and Emerging Sciences 

Relevant Coursework: (Data Structures, Database Systems, Software Design & Analysis, Operating Systems, Artificial Intelligence, Advance Programming, Software for Mobile Devices)

Achievements

4 times Dean's List Honoree

National University of Computer and Emerging Sciences

3rd Place in Annual DAIRA Speed Programming Competition

National University of Computer and Emerging Sciences

Hobbies and Interests

Reading Tech Blogs | Problem Solving | Table Tennis