# **Waheed Ahmed**

## Senior Full-Stack Software Engineer

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#### **Summary**

I am an experienced Senior Full Stack Software Engineer with 5+ years of experience and a proven track record of building scalable, user-focused applications. My expertise spans front-end frameworks like React, Next.js and Angular, as well as back-end technologies such as Node.js, Nest.js, and Python. Proficient in cloud infrastructure, microservices, and DevOps practices, streamlining development and deployment processes. Renowned for delivering clean, efficient code while collaborating cross-functionally to solve complex technical challenges and align engineering efforts with business objectives. Passionate about leveraging technology to create innovative solutions and drive impactful results.

#### PROFESSIONAL EXPERIENCE

## 10Pearls Inc (https://10pearls.com)

Lahore, PK

Staff Software Engineer

Jan 2023 - Present

- **Micro Frontend Architecture:** Led the development of scalable, TypeScript-based micro frontends for high-traffic applications, enhancing modularity and improving code reusability by 35%, allowing independent deployments and efficient scaling.
- **Back-end development with a focus on optimization:** Designed and managed high-performing backend systems utilizing Node.js improving API response times by 40% while ensuring seamless real-time data synchronization across global applications.
- Optimized front-end performance and user experience: Developed responsive and modern user interfaces with React.js, Redux, TypeScript, Next.js, and styling frameworks like Tailwind CSS and MUI, improving customer engagement by 20% and reducing development cycles by 25%.
- **RESTful API Development:** Created enterprise-scale RESTful APIs with Node.js, facilitating seamless communication across distributed systems, handling 10 million daily API calls with 99.99% reliability and integrating secure OAuth2 and JWT protocols.
- Third-Party Integration: Integrated services such as Stripe for global payment processing, Twilio for SMS notifications, AG grid, Highcharts and Google Maps API for store locators, increasing platform functionality and enhancing customer satisfaction by 20%.
- **Test-Driven Development:** Enhanced TDD practices with Mocha, Jest, and Cypress, writing comprehensive test suites that reduced production regressions by 30% and accelerated release cycles by 25%.
- **Cloud Integration:** Led the migration of 15+ legacy systems to AWS using AWS Lambda, S3, and EC2, reducing operational costs by 30% while ensuring 100% uptime for high-traffic fintech applications.
- Agile Development and Collaboration: Collaborated closely in an agile environment, actively participating in technical discussions, making key architectural decisions, and improving software delivery efficiency by 15%.
- **Microservices and Distributed Systems:** Architected and deployed microservices-based systems with Docker, Kubernetes, and GraphQL, supporting strategic goals of rapid scalability and reducing deployment times by 40% across 100+ critical services.

#### Renesis Tech Inc (https://renesistech.com)

Lahore, PK

Senior Full-Stack Engineer

Jan 2022 - Jan 2023

- Engineered scalable software architecture for enterprise applications: Engineered a distributed system using Kubernetes, Node.js, and PostgreSQL, enabling seamless horizontal scaling to handle 15,000+ concurrent users and improving overall system uptime by 40% with robust failover mechanisms.
- **Full-stack development expertise:** Delivered 25+ end-to-end features, including back-end APIs with Node.js and PostgreSQL, and front-end components with React, Redux, and TypeScript, ensuring seamless integration and increasing application performance by 20%.

- Back-end development with advanced frameworks: Built 40+ RESTful APIs and GraphQL endpoints, integrated third-party services, and optimized PostgreSQL and MongoDB databases for 50% faster query performance, supporting real-time analytics and large-scale data processing needs.
- Codebase Refactoring & Performance Optimization: Refactored and modernized legacy code, improving system stability, reducing codebase size by 20%, and enhancing maintainability for future development efforts.
- Front-end development with modern tools: Completed 30+ responsive user interfaces using React, Redux, TypeScript, and Tailwind CSS, integrating WebSocket for real-time updates and achieving 25% higher user engagement across web and mobile platforms.
- **Collaborated with cross-functional teams:** Worked with designers, data scientists, and stakeholders to align project objectives, coordinating 5+ teams to deliver scalable solutions on time and improving client satisfaction by 20%.
- Implemented CI/CD pipelines with TDD: Automated build, testing, and deployment workflows for 100+ releases using Jenkins, Docker, and Kubernetes, while implementing test-driven development with Jest and Mocha, reducing bugs in production by 40%.

## WebWrite Inc (https://webwrite.co)

Lahore, PK

Full Stack Engineer

Apr 2019 - Dec 2021

- **Developed secure telemedicine platforms:** Launched full-stack applications using Node.js, React, and PostgreSQL to enable virtual consultations, integrating video APIs and secure messaging, which increased patient access to healthcare services by 35%.
- Created electronic health record systems: Upgraded RESTful APIs for EHR data integration with third-party systems, ensuring compliance with HL7 and FHIR standards, and improving data interoperability across multiple healthcare providers.
- Enhanced back-end performance for clinical workflows: Designed and implemented a microservices architecture with Node.js and Django, achieving a 40% reduction in API response times and enabling efficient real-time data processing for advanced patient monitoring systems.
- **Front-end development for patient portals:** Converted 25+ responsive UIs using React, Redux, and Material-UI, enabling patients to view medical records, schedule appointments, and access lab results, improving user satisfaction by 30%.
- **Designed scalable database architectures:** Built relational database schemas using PostgreSQL and MySQL, integrated indexing and partitioning strategies, and optimized complex queries, reducing response times by 60% while ensuring the system could handle over 10 million records efficiently.
- **Collaborated with healthcare compliance teams:** Partnered with compliance officers to achieve HIPAA and GDPR compliance, ensuring the secure management of sensitive data and protecting patient information across all application systems.

#### **EDUCATION**

#### The Superior University

Lahore, PK

Bachelor of Science (BS) in Computer Science and Information Technology

2016 - 2020

## **SKILLS**

#### **Programming Languages:**

JavaScript, TypeScript, Python, C/C++/

#### **Back-end Development and Databases:**

- Back-end Frameworks: Node.js, Nest.js
- Database: MongoDB, MySQL, PostgreSQL, Firebase, Redis

#### **Front-end Development:**

- Frameworks: React, Next.js, Angular
- UI Libraries: MUI, Tailwind CSS, Ant Design, Chakra UI, Bootstrap, Semantic UI
- State Management: Redux, React Context API, MobX, NgRx, React Query, Redux ToolKit, Recoil
- · Design Systems: Story book, ComponentKit

## **Testing and Optimization:**

- Frameworks: Jest, Mocha, Cypress, Karma, React Testing Library, unittest2, pytest
- Performance Testing: React Diagnostics, React-Hooks-Profiler, Angular Performance Profiler, Locust
- Bundle Optimization: Webpack, Vite, Babel, Rollup
- Performance Monitoring: New Relic, Lighthouse, Datadog

#### **Cloud Services & Tools:**

- · Cloud Platforms: AWS, Azure, GCP
- Docker, Kubernetes, Jenkins, Terraform

## **Architecture and Cloud Technology:**

- AWS Services: AWS Lambda, EC2, DynamoDB, Route53, Amplify, API Gateway, S3, ECS
- Azure: AzureFunctions, Virtual Machines, CosmosDB, Traffic Manager, API Management, Blob Storage, AKS
- · GCP: GCP Cloud Functions, Compute Engine, Cloud Firestore, Cloud DNS, Storage, Vision API

#### **Third-Party Services:**

· Google Maps, Facebook, Twitter, Stripe, Paypal, SendGrid, Mailchimp, Twilio, Dropbox, Typeform, OpenAI API

#### **Awards & Certifications**

- Runner up in Al Hackathon 10Pearls (2024)
- TypeScript: The Complete Guide Course Udemy (2021)
- Full-Stack Web Development with React Coursera (2019)

## Languages

- English C2
- German A1
- Urdu Mother Tongue