Zain Ali Shan

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About

A seasoned full stack engineer with over 6 years of software development experience, specializing in the MERN stack (MongoDB, Express, React, Node.js, Next.js), Python (Django). Proven track record of successfully delivering end-to-end projects across various domains. Experienced in designing, developing, and deploying scalable, high-performance web applications, focusing on performance optimization, security, and user experience. Adept at collaborating with cross-functional teams, managing stakeholder expectations, and ensuring alignment of technical solutions with business goals.

Experience

Lead Developer Wellcrafted – USA (Remote)   Mar 2025 – Present

- Spearheaded full-stack development across multiple client projects using the MERN stack and Python/Django, delivering scalable and maintainable applications in fast-paced consulting environments.
- Upgraded infrastructure: managed Terraform IaC, performed Kubernetes cluster upgrades, and updated AWS AMI versions.
- Built and maintained CI/CD pipelines with GitHub Actions/GitLab CI, accelerating deployments and reducing production issues.
- Modernized legacy apps with React and Next.js, improving frontend performance and backend response times by 20%.
- Reviewed 100+ PRs and mentored junior engineers, raising code quality and team velocity.
- Partnered with clients for sprint planning and project scoping, providing 95% accurate technical estimates and aligning engineering with business goals.

Associate Team Lead Techverx – Lahore, PK   June 2024 – Mar 2025

- Led development of scalable web apps using Node.js, Python, React, Next.js, and Redux Toolkit, delivering maintainable solutions across 5+ client projects.
- Designed and implemented an ETL pipeline to migrate large on-prem SQL Server datasets to Amazon RDS, reducing manual data-transfer effort by about 70%.
- Modernized a legacy frontend by migrating from Knockout.js to React + Redux Toolkit, improving page load times by roughly 25%.
- Built CI/CD pipelines with GitHub Actions and GitLab CI, enabling automated, reliable deployments.
- Integrated Amazon S3 and CloudFront for scalable storage and global CDN delivery, improving end-user file-delivery speed.
- Mentored junior developers through code reviews and pair programming, strengthening team skills and code quality.
- Participated in Agile ceremonies (stand-ups, sprint planning, backlog grooming) to maintain clear communication and on-time delivery.

Senior Software Engineer Confiz – Lahore, PK   Aug 2022 – June 2024

- Developed an IoT-based healthcare platform with Python/Django, React, and SQLAlchemy, enabling real-time processing of diagnostic data and automated report delivery to doctors and patients across 10+ hospitals and serving 10,000+ patient records.
- Architected a multi-tenant database design supporting multiple hospitals and geographic regions, ensuring secure data isolation and scalable performance for a growing user base of 500+ active clinicians.
- Built and optimized backend services with Python/Django and SQLAlchemy, improving API response times by approximately 20% while maintaining encrypted communication with IoT devices.
- Implemented Flyway for automated database migrations and schema version control, keeping development, staging, and production environments fully in sync.
- Integrated AWS SES to automate transactional emails (reports, confirmations, notifications) with 99%+ deliverability.
- Leveraged AWS S3 for secure, scalable file storage and controlled access to medical records.
- Containerized backend services with Docker, ensuring consistent environments and simplified production rollouts.

Software Engineer Devsinc – Lahore, PK   Jan 2021 – Aug 2022

- Developed a dynamic auction platform that aggregated product listings and pricing data from multiple external websites using Cheerio, enabling near–real-time visibility of items across marketplaces.
- Designed and implemented a data-ingestion pipeline to process and transform scraped data into a structured format, storing and managing millions of records efficiently in MongoDB.
- Built user-facing components with React and Next.js, allowing users to browse listings, filter by category, and view detailed product and bidding history.
- Created backend services with Node.js to refresh scraped data on a scheduled basis, keeping listings synchronized with external sources and cutting stale data by roughly 30%.
- Integrated Stripe for secure payment processing, enabling a complete purchase flow within the application.
- Improved application performance by implementing caching for high-traffic data and optimizing pagination, reducing average page-load times by about 20%.
- Developed a resilient error-handling system for the scraping engine to manage structural changes on source sites, network disruptions, and timeouts, ensuring continuous data collection.

Associate Software Engineer Devsinc – Lahore, PK   July 2019 – Jan 2021

- Developed and maintained a full-stack web application using the MERN stack (MongoDB, Express, React, Node.js), with a focus on building scalable features and optimizing application performance.
- Implemented core functionalities including scheduling, user management, real-time notifications, and payment processing, significantly improving overall user engagement and platform utility.
- Integrated JWT-based authentication and role-based authorization, ensuring secure access control for different user types across the application.
- Built and maintained RESTful APIs using Node.js and Express, encapsulating business logic and enabling smooth integration with third-party services.
- Upheld high code quality standards by writing unit tests, conducting thorough code reviews, and maintaining CI/CD pipelines for automated testing and deployment.

Education

Punjab University College of Information Technology   Oct 2015–Jun 2019
BS in Computer Science

Technologies

Languages: C, C++, Javascript, Typescript, Python, Go, HTML5.
Backend Technologies: Node.js, Express.js, Restify, Django, Flask, Redis, RabitMQ, Kafka, Mongoose, Sequelize, Prisma, Passport, Grafana, Metabase, AuthO, JWT, Fullstor, Rollbar
Frontend Technologies: React.js, Next.js, Angular.js, Redux, Redux Toolkit, JQuery, CSS, Bootstrap, MaterialUI, Tailwind.
Databases: MongoDB, DynamoDB, SQL, MySQL, AWS RDS, PostgreSQL.
Cloud Technologies & Version Control: AWS, Heroku, EC2, AWS Lambda, EKS, ECR, SES, SQS, Elastic Beanstalk, Docker, Kubernetes, S3, CloudFront, Terraform, AWS CodePipeline, Git, GitHub, GitLab, Bitbucket.