Saad Naseer

Software Engineer — Backend Specialist

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PROFESSIONAL SUMMARY

Results-driven Backend Engineer with experience developing scalable, high-performance backend systems using Node.js, Python, FastAPI, Express, Django, and microservice-based architectures. Skilled in designing distributed systems, optimizing database performance, improving API reliability, and building real-time communication pipelines using RabbitMQ, MQTT, WebSockets, and Asterisk ARI/AGI. Proven track record in improving system efficiency, reducing latency, automating processes, and improving system uptime. Having experience leading backend teams, mentoring developers, and driving projects from concept to production. Passionate about delivering robust, secure, and maintainable backend solutions.

TECHNICAL SKILLS

Programming Languages: JavaScript, TypeScript, Python, Java, HTML, CSS
Backend Frameworks: Node.js (Express, Fastify, Nest), Python (FastAPI, Django, Flask)
Databases: MySQL, PostgreSQL, MongoDB, Redis (optimization, indexing, schema design)
Caching & Performance: Redis, Memcached, in-memory caching, API optimization, circuit breakers
Messaging & Realtime: RabbitMQ, MQTT, WebSockets, pub/sub, background jobs
Cloud & DevOps: AWS (EC2, Lambda, S3, RDS), Azure, Docker, CI/CD, Ansible
Security: JWT, OAuth2, encryption, secure API design, OWASP
Monitoring: Prometheus, Grafana, ELK Stack, Winston, Python logging
Testing: Pytest, Jest, Mocha, integration & unit testing
Architecture: REST APIs, microservices, serverless, modular architecture, rate limiting
System Tools: MQTTX, WinSCP, Navicat, MobaXterm, Nginx

PROFESSIONAL EXPERIENCE

Backend Specialist **Feb 2024 – Present**
Bakhabar Kissan — Islamabad, Pakistan

- Led a team of backend developers, improving delivery velocity and code quality through mentorship, code reviews, and task delegation.
- Engineered scalable VoIP backends using Asterisk AGI/ARI, reducing call-processing delays and improving system reliability.
- Designed and deployed IVR systems that handled thousands of daily inbound calls with improved routing accuracy.
- Improved outbound call success rates by optimizing ARI workflows and reducing failure points.
- Automated data synchronization and system tasks using Python cron jobs, reducing manual operational workload by 60%.
- Designed RabbitMQ-based queue systems for SMS and call workflows, achieving smoother message throughput and reduced bottlenecks.
- Implemented Redis caching layers that cut API response times by up to 40%.
- Optimized MySQL/PostgreSQL queries and schemas, significantly improving reporting and analytics performance.
- Implemented automated deployments using Ansible, reducing deployment time and configuration

drift across servers.

Lead Backend Engineer **Aug 2024 – Mar 2025**
InsighthubTech — Remote

- Directed backend architecture across multiple projects using Python (FastAPI, Django, Flask) and Node.js.
- Built large-scale REST APIs and microservices, improving system modularity and reducing integration time.
- Engineered real-time data pipelines using MQTT, RabbitMQ, and WebSockets, enabling live device monitoring and analytics.
- Optimized cloud infrastructure on AWS EC2, cutting operational expenses through efficient resource management.
- Established CI/CD pipelines to automate testing and deployments, reducing release cycles by 70%.
- Enhanced database performance through schema redesign, indexing strategies, and query optimization.
- Implemented caching layers and circuit breakers, significantly improving fault tolerance and API uptime.

Backend Developer **Aug 2023 – Feb 2024**
Center for Advanced Research in Engineering — Islamabad, Pakistan

- Developed high-performance backend services using Fastify, Express, and FastAPI.
- Built Python-based analytical systems for real-time IoT data processing and visualization.
- Designed MQTT-based communication pipelines for sensor data ingestion.
- Deployed scalable applications on AWS EC2 and Lambda, improving system resilience.
- Configured Nginx for load balancing, reverse proxying, and production deployments.
- Implemented real-time WebSocket servers for live device feeds.
- Built CI/CD automation using GitHub Actions for test and deployment workflows.

Full Stack Developer **Jun 2022 – Jul 2023**
Ccript — Remote

- Built front-end applications using Next.js, Remix, and React, improving UX and performance.
- Developed mobile apps with React Native for cross-platform deployment.
- Managed backend services in Node.js and Python, improving API throughput and reliability.
- Processed large datasets using MongoDB and Python scripts, improving data accuracy and reporting efficiency.
- Integrated Mapbox for geospatial features, enhancing location-based services.
- Developed automated analytics and reports using Python.

EDUCATION

Bachelor of Science in Software Engineering **Jan 2019 – Feb 2023**
COMSATS University Islamabad

CERTIFICATIONS

Triplebyte Certified — Software Engineering
HackerRank Python Certified — Python Programming