

Shashank Patil

Backend Software Engineer • C#/.NET • REST APIs • SQL Server • Financial Workflows

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EDUCATION

Master of Science in Computer Science, Texas State University • Dec 2025

SKILLS

Languages: C#, SQL, C++, TypeScript, Go; Legacy: Classic ASP

Backend: .NET 4.x, .NET 8, ASP.NET Core, ASP.NET Core MVC, EF Core / Entity Framework, REST APIs, Microservices, API Gateway, OAuth 2.0, JWT, RBAC, Background Workers

Distributed Systems: RabbitMQ, Event-Driven Architecture, Transactional Outbox, Idempotent Consumers, Retry/DLQ, Redis Caching, Rate Limiting

Data: SQL Server, PostgreSQL, PL/SQL, Database Design, Indexing, Transactions, Query Optimization, Stored Procedures

DevOps/ Testing: Git, GitHub Actions, CI/CD, Docker, xUnit, Integration Testing, Testcontainers, smoke testing, code quality assurance & review

Domain: Enterprise finance workflows, CRM systems, ticketing/SLA automation, internal operations platforms, legacy modernization

Workflow: Agile, troubleshooting, cross-functional collaboration

PROFESSIONAL EXPERIENCE

Backend Software Engineer - Enterprise Finance & Operations Systems

TechNova Imaging Systems Pvt. Ltd. • Sep 2019 – Jan 2024

- Modernized a 150+ module Classic ASP monolith into a .NET Core + SQL Server backend platform supporting 1,000+ internal users across finance, operations, and support.
- Designed secure REST APIs with OAuth 2.0, JWT authentication and RBAC for a React Native mobile application.
- Built finance and banking integrations with Oracle JDE, reducing invoice processing from ~4 hours to under 5 minutes and saving 8+ labor hours per day.
- Developed custom CRM workflows using ASP.NET Core MVC, Entity Framework, TypeScript validations, role-based access, and Oracle CRM On Demand API sync.
- Built RabbitMQ-based workflows for ticket lifecycle automation, SLA tracking, retry handling, dead-letter queues, and reporting.
- Improved high-volume API performance using Redis TTL caching, rate limiting, SQL Server indexing, and query tuning while working in Agile delivery cycles.
- Worked cross-functionally with finance, operations, and support teams to troubleshoot API, SQL, and integration issues across internal workflows.

ACADEMIC EXPERIENCE

Software Engineer Teaching Assistant - Backend Systems

Texas State University • Aug 2024 – Dec 2025

- Led teams building REST APIs and backend modules; created reference implementations, reviewed pull requests, and guided system design tradeoffs.
- Mentored students on troubleshooting backend issues across validation, persistence, and API contracts, improving code quality and reliability.

PROJECTS

[Event-Driven Order Processing Platform](#) 🔄

.NET 8, RabbitMQ, PostgreSQL, Redis, Docker

- Built a .NET 8 microservices order platform with Order, Inventory, Payment, Notification, Reporting, and API Gateway services using ASP.NET Core, RabbitMQ, PostgreSQL, and Redis.
- Implemented transactional outbox, idempotent consumers, retry queues, DLQs, duplicate-payment handling, and compensation events for asynchronous order workflows.
- Packaged the system with Docker Compose, health checks, structured logging, GitHub Actions CI, xUnit tests, Testcontainers, and smoke/load validation scripts.

[ASP.NET Core Rate Limiting Middleware](#) 🔄

.NET 8, Redis, Middleware, xUnit

- Implemented fixed-window, sliding-window, and token-bucket rate limiting with API-key, authenticated-user, and IP-based identity resolution.
- Used Redis-backed IDistributedCache, per-route policy selection, dependency injection, JSON error responses, and xUnit coverage for rate-limit strategies.