

Stefan Shterjoski

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Senior Backend Engineer (.NET) • Integration Engineer • API Specialist

Senior Backend Engineer with 5+ years of professional experience and strong expertise in .NET (6–8), backend architecture, complex API integrations, and workflow-driven systems. Proven track record of building integration-heavy, business-critical backend services including e-signing platforms, document generation pipelines, and data-intensive workflows. Known for deep ownership, clean architecture decisions, and the ability to take ambiguous requirements and turn them into reliable production systems.

PROJECTS

Regulated Operations Platform

- Built integration flows across multiple third-party systems
- Designed data synchronization and consistency strategies
- Implemented booking, invoicing, and notification workflows
- Solved real-world interoperability and data-conflict issues

Business Operations Workflow Platform

- Designed role-based access and permission models
- Built workflow states such as hold, extend, cancel, and confirmation flows
- Implemented reporting, filtering, and process-driven interfaces
- Structured end-to-end lifecycle behavior across multiple actors

Analytics & Executive Reporting Dashboard

- Designed KPI structures for patients, bookings, appointments, operations, and finance
- Implemented time-based comparison views across months, quarters, and years
- Integrated Python-based ML/data scripting into the broader solution context
- Focused on decision-support and proactive alerting for management

Payroll & Business Operations Software

- Built and supported workflow-oriented business features
- Contributed from system design through deployment and support
- Focused on maintainability and operational continuity
- Worked in software contexts where reliability and business accuracy mattered

Travel Agency Management System

- Full ownership from architecture to implementation
- Modular backend with maintainable business structure
- PDF generation and workflow-driven administration
- Full-stack Angular + .NET implementation

WORK EXPERIENCE

Emit Knowledge LLC Senior Backend Engineer

09/2020 – Present
Skopje, North Macedonia

- Architect and develop core backend modules using .NET 6–8 for enterprise SaaS products with long-term maintenance requirements.
- Work on and extend e-signing workflows end-to-end, including document lifecycle management, webhook validation, audit trails, reminders, and provider-specific edge cases.
- Design and implement integration-safe background processes, including nightly sync jobs, retry strategies, rate limiting, and monitoring for third-party providers.
- Build PDF document generation pipelines (contracts, vouchers, reports) with strict layout, localization, and branding requirements using QuestPDF.
- Create Excel-based bulk import/export systems with complex validation rules, structured error reporting, and domain-level consistency guarantees.

- Refactor legacy EF-heavy codebases into Dapper-first repositories for improved performance, predictability, and SQL control.
- Solve real-world data problems: duplicate cleanup, partial unique constraints, transactional migrations, and backward-compatible schema changes.
- Collaborate closely with frontend teams (Angular) on authentication flows, API contracts, pagination, filtering, and performance considerations.
- Act as a technical reference point for backend architecture decisions, code reviews, and complex bug investigations.

Software Engineer Intern • Internship

Supported backend API development, SQL queries, and early integration work within .NET-based systems.

Oslomej Energy Complex

01/2017 – 04/2017

Control Systems Intern • Internship

Assisted with monitoring and control systems in an industrial power-generation environment.

EDUCATION

University Studies

Faculty of Computer Science & Engineering

01/2021 – Present

Undergraduate Studies

Faculty of Electrical Engineering & Information Technologies

01/2015 – 01/2019

SKILLS

- | | | |
|----------------------------------|-----------------------------------|----------------------|
| • Angular | • Data Modeling | • Migrations |
| • ASP.NET Core | • Docker | • .NET |
| • Authentication & Authorization | • Entity Framework Core | • PostgreSQL |
| • Azure DevOps CI/CD | • Environment-based configuration | • Query Optimization |
| • Background Services | • Git | • Relational Design |
| • C# | • IIS | • REST APIs |
| • Clean Architecture | • Integration Workflows | • SQL Server |
| • Dapper | • JavaScript | • YARP Reverse Proxy |

CORE STRENGTHS

- Building and maintaining integration-heavy platforms (third-party APIs, webhooks, background jobs)
- Designing scalable backend architectures for long-lived enterprise systems
- Refactoring legacy code into maintainable, testable, performance-oriented solutions
- Strong focus on data integrity, idempotency, and failure handling
- Translating business workflows into robust domain models and processes

Integrations & Automation

- Background Jobs
- BoldSign
- Halkbank payment
- Idempotency
- Mailjet
- OAuth 2.0
- Rate Limiting
- REST APIs
- SignRequest
- Webhooks

Documents & Data Processing

- batch exports)
- Data transformation and validation workflows
- Excel import/export pipelines with validation
- File processing (ZIP archives)
- PDF generation for contracts and reports