

PETR VALÍK

Full-stack .NET engineer — operational visualization, backend to browser

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NATO SECRET CLEARANCE (→ 2035)

CZECH REPUBLIC SECRET

.NET / C#

REACT / TYPESCRIPT

GEOSPATIAL · CESIUMJS

SELF-HOSTED INFRA

Software engineer with 2+ years of professional experience across backend (.NET / ASP.NET Core) and frontend (Blazor, React/TypeScript). Built operational military software at DELINFO — vehicle diagnostics (CV90, Tatra), a BMS map plugin, staff applications — with near-real-time data (polling, WebSocket + heartbeat, camera streaming) and geospatial interoperability (XML → KML). Runs a 19-service self-hosted estate as infrastructure-as-code. Aiming at the **space / defense** domain: systems that have to be right the first time.

EXPERIENCE

Papirfly — Backend Developer (.NET)

Jun 2026 — present · Brno

- Backend development on the Brandmaster product line (.NET, cloud services).

DELINFO, spol. s r.o. — Software Engineer, defense systems

Mar 2024 — Mar 2026 · Brno

- Designed the core of an **extensible diagnostic system for military vehicles** (CV90, Tatra) with a transport-agnostic architecture — processing and visualization independent of data acquisition.
- Near-real-time ingestion in ASP.NET Core: API polling @ 1 s (Tatra), **WebSocket + heartbeat** (CV90), camera streaming (up to 4 streams with resolution switching).
- BMS map plugin**: XML symbol parsing → internal format → **KML export** for geospatial interoperability; hierarchical dynamic symbol tree.
- Plans & Orders** full-stack app (.NET clean architecture + Blazor/Radzen): mail-like document workflow with state-restricted actions.
- External-partner API (two versions, MVC → Minimal API); SRS/SDD documentation, reverse engineering, English technical presentations to international partners.

WALDATRANSPORT, s.r.o. — Deputy Director

Jul 2023 — Feb 2024 · Brno

- Led the family transport company through an emergency: daily operations, team of 33, business continuity under pressure.

KBC Global Services — Developer

May — Jun 2023 · Brno

- Enterprise-scale systems and established corporate development processes.

SELECTED PROJECTS — LIVE AT PETR.IRMINsul.UK

Orbital Ops · [orbit.irminsul.uk](#)
Multi-domain ops console: 12,000+ satellites (SGP4 in a Web Worker), live aircraft & ships, pass prediction — CesiumJS, React 19, 117 tests.

Example API · [github](#)
One OpenAPI contract, 10 implementations (.NET / Python / TS), conformance suite + k6 benchmark harness — architecture cost, measured.

SnapshotDiff · [github](#)
One Blazor Hybrid core in three desktop shells (MAUI, Photino, Blazor Server); ~138k LOC, 150+ tests.

Irminsul — indie cloud · [irminsul.uk](#)
Self-hosted estate: 19 services / 3 servers, Authentik SSO, DNS-as-code, restic DR with drilled restores — all infrastructure-as-code.

webplatform · [private](#)
Multi-tenant SaaS backend: .NET modular monolith (~30 vertical-slice modules), transactional outbox, Stripe/GoPay, fail-closed billing.

Chess Tournament · [gambittournament.com](#)
Bilingual tournament site in production for a GM-norm event (Next.js, Firebase).

SKILLS

BACKEND	.NET / ASP.NET Core (MVC, Minimal APIs), C#, EF Core, MediatR / CQRS, REST, SMTP, Python
ARCHITECTURE	Clean architecture, modular monolith, Vertical Slice, CQRS, transport-agnostic core design
FRONTEND	Blazor (professional, Radzen) · React 19 / TypeScript (Hooks, Router, Tailwind, shadcn/ui) · Next.js

GEOSPATIAL	CesiumJS, SGP4/TLE, XML → KML, MapLibre / deck.gl (exploring), R3F / GLSL (learning)
DATA	PostgreSQL, SQL Server, SQLite, Supabase, MongoDB (basic), TimescaleDB
TESTING	xUnit, NSubstitute, FluentAssertions, Testcontainers, Jest, Supertest, k6
DEVOPS	Docker, GitHub Actions CI/CD, Linux, Caddy, Authentik SSO, restic, GCP, Firebase
PROCESS	Agile / Scrum, requirements analysis, SRS/SDD, PR reviews, English technical presentations

EDUCATION & LANGUAGES

2023 – 2027	Unicorn University — BSc Software Development (part-time, in progress)
2020 – 2023	Masaryk University, Brno — Programming and application development (coursework: Java, C, C#, SQL)
LANGUAGES	Czech (native) · English (C1) · German (basic) · Spanish (basic)
INTERESTS	Military history (WWII, Pacific theater) · geocaching · basketball · board games

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