

# Andrei Velent

## Staff / Lead Software Engineer — Backend & Distributed Systems

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Staff/Lead Software Engineer with 13 years building high-load SaaS platforms and event-driven distributed systems. Started **four production codebases from the first commit** (~5,000 commits, ~1M lines verified in git) and owned their architecture, quality and production reliability end to end. Specialise in **PHP 8 / Symfony, Go, PostgreSQL optimisation** and reliable asynchronous architectures — DDD, CQRS, Event Sourcing, transactional outbox, idempotent consumers, delivery guarantees. Deep in payment systems: two-stage acquiring, marketplace revenue splits, reconciliation. Previously at Wargaming.net. Live demo of my engineering style: [ledger.avelent.work](https://ledger.avelent.work) — an event-sourced double-entry ledger.

### TECHNICAL PROFILE

Languages	PHP 8.x · Go · Python · SQL · TypeScript
Frameworks	Symfony 7 · API Platform · Doctrine ORM · RoadRunner · FastAPI · Django
Architecture	DDD · CQRS · Event Sourcing · Transactional Outbox · Saga · Idempotency · Multitenancy · Clean Architecture
Messaging	RabbitMQ · Kafka · Symfony Messenger · Mercure (SSE)
Data	PostgreSQL (indexing, query tuning, PostGIS, TimescaleDB, range types) · MySQL · Redis · Elasticsearch
Testing	PHPUnit · Infection (mutation testing) · Behat · mock-free integration testing
Infra / DevOps	Docker / Swarm · k3s / Helm · Nginx · Linux · GitLab CI / GitHub Actions · Prometheus · Grafana · Loki · Ansible
AI tooling	Claude Code & Cursor in daily engineering (agentic coding, spec-driven development with OpenSpec) · ML R&D: YOLOv8 + CVAT object detection

### WORK EXPERIENCE

#### Amiga — Lead Software Engineer (remote)

Oct 2025 – Present

PHP 8.4, Symfony 7.4, Go, PostgreSQL 17, RoadRunner, RabbitMQ, Redis, Grafana

- Started the codebase of a **multi-supplier travel-booking platform** (tours, hotels, flights) and authored **~80% of 1,099 commits** (~334K lines: PHP, Go, TypeScript) as lead full-stack engineer.
- Designed the **payments subsystem**: two-stage acquiring (hold → capture/void → refund) with **split payments across sub-merchants**; event-driven capture over RabbitMQ so payment failures never roll back confirmed bookings; eliminated partially captured payments.
- Integrated **6 travel suppliers behind one adapter port** (hand-built SOAP for a flight GDS, session-managed XML operators); **passed Expedia Rapid partner certification**.
- Built a **Go engine deduplicating ~1M hotel records** from 5 suppliers against a 700K canonical catalog (spatial grid index, 8-metric string-similarity ensemble, reversible merges); cut a chronic 48-hour supplier sync ~7× and shrank the incremental sync window from 66 days to one.
- Stood up observability from zero — **15 Grafana dashboards**, custom metrics over RoadRunner RPC, end-to-end tracing — plus CI/CD with 6 security scanners and diff-based mutation testing.

#### YouGo Money — Senior Software Engineer (remote, contract)

Aug – Nov 2024

Python 3.11, FastAPI, async SQLAlchemy/SQLModel, PostgreSQL, Django admin, APScheduler

- Owned the **payments/billing subsystem** of a contractor-payout fintech: a multi-currency settlement pipeline aggregating approved invoices into project invoices and bank payment orders, with **FX conversion at historical rates** (Decimal-exact fee accounting) and document generation (Jinja-DOCX → PDF).
- Built the FX reference-data service (Fixer.io catalog + daily cross-rates, DB-configurable schedule, async-cached point-in-time lookups) and per-project payment methods supporting **bank rails and BSC crypto payouts**.

#### Anadea / Igloo — Senior Software Engineer (remote, contract)

Jul – Sep 2024

Python, Django 4.2, Celery, PostgreSQL, RabbitMQ, BeautifulSoup, AWS

- Designed and shipped the **listing-scraping subsystem** of an Icelandic rental marketplace: a template-method framework (new sources = ~100-line declarative subclasses), **5 production scrapers across 4 ingestion strategies** incl. a reverse-engineered Hasura GraphQL API with cursor pagination.
- Incremental scraping with URL-keyed dedup/early-stop, an append-only **price-history time series**, a hardened S3 image pipeline; deployed as 10 staggered Celery beat jobs on a dedicated RabbitMQ queue.

#### Delivery Software — Lead Software Engineer (remote)

Jul 2019 – Present

PHP 8.x, Symfony 7, PostgreSQL/PostGIS, RabbitMQ, API Platform, RoadRunner, Redis, Elasticsearch

- Started and led **three production delivery platforms from the first commit**: a food-delivery marketplace (7 years, top contributor — ~3,330 of 9,474 commits, ~602K lines), a national restaurant brand's ordering platform, and a multi-tenant white-label SaaS.
- Designed a **distributed courier-dispatch engine** (95% authorship): DB-configurable state machine over RabbitMQ that survives worker restarts, PostGIS geo-scoring, order chaining (2–3 orders per courier), pool-mode assignment-problem resolution under distributed locks.
- Built the **marketplace payment core** (91% authorship): 3 acquiring banks behind one interface, two-phase auth/capture with **automatic revenue splits** across restaurant / courier / platform, an internal balance ledger, kopec-exact rounding reconciliation, card tokenization and recurring payments.
- Implemented **schema-per-tenant multi-tenancy** as a custom Symfony bundle (Doctrine DBAL-level connection switching, tenant context across the async bus) and a **white-label pipeline** generating branded iOS/Android apps per tenant from config.
- Executed **zero-downtime platform migrations**: PHP 7 → 8, Symfony 4 → 7, PostgreSQL → 14+, PHP-FPM → RoadRunner (persistent workers, statelessness audit); order-pricing engine with 20+ discount/promo mechanics; delivery geo-zones on PostGIS with road-network routing (self-hosted OSRM).
- Adopted **AI-assisted development** across the products: Claude Code and Cursor for domain-logic refactoring and spec-driven feature delivery; ML R&D — trained a YOLOv8 model with CVAT for object detection.

#### Wargaming.net — Senior Software Engineer (Minsk)

Aug 2012 – Apr 2020

PHP, Python

- Tech lead of the **Global Wiki** project — a large multi-language content platform.
- Led development of the internal logging system (Python); full-stack developer on an ad-campaign tracking engine; improved CI/CD processes across teams.

### LANGUAGES

Belarusian, Russian (native) · English (B2) · Polish (B1)

### EDUCATION

**BSUIR**, Minsk — Economics, Programming (2003–2008)  
School of Business and Management of Technology, BSU — Web programming (2009–2010)