

ULUKMAN ZHYRGALBEK

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Software engineer, 4+ years building event-driven backends for fintech and banking. Kafka-centric messaging (outbox/inbox, exactly-once, DLQ) and BPMN-orchestrated microservices on Kubernetes. FastAPI, Django, SQLAlchemy, AsyncIO, strong PostgreSQL schema design, DDD and layered architecture. Deep experience with payment integrations and production incident analysis. Comfortable owning features end to end and leading a team.

SKILLS

- **Core:** FastAPI, Django, DRF, SQLAlchemy, Pydantic, AsyncIO, Go, Python
- **Messaging:** Kafka, RabbitMQ, Celery, Zeebe / BPMN
- **Data & Infra:** PostgreSQL, MongoDB, Redis, Elasticsearch; Kubernetes, Docker, GitLab CI/CD, GCP, AWS S3
- **Observability & Quality:** Prometheus, Grafana, Sentry, ELK, OpenTelemetry; PyTest, testcontainers, Mypy.

WORK EXPERIENCE

Mdigital

Jul 2024 to Present

Software Engineer

Credit Scoring Platform (Banking)

Loan scoring platform for a commercial bank: about 15 services and 3 shared libraries on Django/DRF, FastAPI, Celery, Kafka, Zeebe/BPMN, Kubernetes.

- Launched a new back-office service from scratch (FastAPI, Alembic, testcontainers, GitLab CI, k8s, Vault), including two-factor auth with TOTP and JWT, and took it to production.
- Ran a self-initiated security audit and closed two confirmed vulnerabilities, including shared logging middleware writing passwords, TOTP secrets and access tokens into centralized logs; shipped a fail-closed masking filter.
- Found and fixed a self-renewing circuit breaker in the integrations library shared by every service: a mis-classified exception kept re-arming provider blocks, so one degraded gateway disabled all provider integrations; after the fix traffic recovers in about two minutes.
- Shipped a cross-service client-limit-by-segment feature across 7 repositories and 6 BPMN schemas; caught an out-of-enum BPMN value in review that would have caused a production incident.

Clearing Platform (FinTech)

Multi-service payment backend: Django management/CRM with a Go transaction core, RabbitMQ microservices on Kubernetes.

- Designed a Django management and CRM service with a layered structure and a custom multi-database router (read-only transaction core, read/write admin DB), plus RBAC and SMS-OTP 2FA.
- Built a Celery clearing-file pipeline with streaming multipart report exports to S3 / MinIO over PostgreSQL server-side cursors: millions of transaction records a day with flat memory use and no OOM, off the request path.
- Built REST endpoints and JOSE / JWS (RSA) request/response signing in the Go transaction-routing core, securing service-to-service payment traffic.

Insurance Platform, Team Lead (Insurance FinTech)

Multi-product insurance backend for a banking mobile app: policy issuance, payments, event-driven contract activation.

- Led a cross-functional team (BE / FE / QA): architecture, code reviews, release strategy, CI/CD, Docker Swarm deployments, mentoring.
- Integrated a banking payment protocol end to end (XML, deduplication, webhooks, reconciliation) and architected a RabbitMQ contract-activation worker with retries, DLQ and replayable workflows.
- Migrated the platform infrastructure from single-host Docker to Docker Swarm with rolling deployments.

MMarket (E-commerce, FinTech)

Backend for the marketplace of MBANK, Kyrgyzstan's most popular mobile bank (7M+ app downloads): 70,000+ SKUs, nationwide delivery, in-app payments and interest-free installments up to 12 months.

- Designed a payment-orchestration layer over multiple providers (banking APIs, PSP) with split payments and idempotent transitions, and published an internal payment-gateway SDK ([payler-sdk](#) on PyPI).
- Built Elasticsearch full-text search (multilingual analysis, synonyms, typo tolerance) plus ELK, Grafana and Metabase dashboards.

Launchist LLC

Feb 2022 to Jul 2024

Software Engineer

Remote

Async FastAPI / Django backend for a multi-tenant B2B SaaS: wallet, billing, integrations, RBAC, webhooks (GCP Cloud Run).

- Built a Kafka outbox / inbox pipeline with idempotency and DLQ for reliable exactly-once event processing across services.
- Designed a multi-currency wallet ledger (MongoDB, Beanie) with double-entry logic and optimized schemas and queries across MongoDB and PostgreSQL.
- Implemented fine-grained multi-tenant RBAC (Permify) with permission checks integrated into FastAPI.
- Built async integrations (httpx) with Airtable, Slack, YouTrack and WhatsApp, cutting external API latency by 30 to 40%, plus a webhook-driven e-signature workflow with a state machine and retries that cut approval time from days to 2 to 3 hours (median).