

OLZHAS TOISHYBEK

Backend Engineer · Python

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SUMMARY

Backend engineer with 4+ years building and scaling Python services across HR-tech, ed-tech, and marketplace products. Specializes in designing scalable backend systems and APIs, from data modeling and performance tuning to production LLM integration and the infrastructure behind them (Docker, Kubernetes, AWS, CI/CD). Scaled platforms to 12,000+ users, cut API latency by 40%, and co-founded an ed-tech startup as CTO.

TECHNICAL SKILLS

Languages: Python, SQL, JavaScript

Frameworks: Django, Django REST Framework, FastAPI, Celery, asyncio

Databases & Caching: PostgreSQL, MySQL, MongoDB, Redis, pgvector

AI & LLM: RAG pipelines, LLM API integration, vector search, embeddings

Cloud & DevOps: AWS (EC2, S3, RDS), Docker, Kubernetes, Nginx, Gunicorn, CI/CD pipelines, Linux

Practices: REST API design, OpenAPI/Swagger, authentication & authorization, performance profiling, code review, Agile/Scrum

PROFESSIONAL EXPERIENCE

SOMNIUM LLP — Astana, Kazakhstan

February 2026 – Present

Software Engineer

- **Diagnosed a production slowdown for a government client** with a read-only telemetry script (pg_stat_statements, /proc, docker stats) over **5 hours of live data, zero PII**: the app tier used **16 of 16 CPU cores** while the DB sat at **20%**, and **~90% of 23.5 s user latency** was queueing.
- Found the **top query by total execution time (268K calls in 3 h, 77 ms each, 46% of top-40 DB time)**, a per-row correlated EXISTS. Rewrote grid pagination and **cut the permission check to 3 indexed queries**. Also identified lock contention (**19 blocked sessions**), a event misconfiguration (**3,000 requests on 16 cores**), and **58 of 76** empty prefetch branches.
- Designed and built the **time-tracking module from scratch**: shift schedules, geofenced and selfie-verified clock-ins, auto clock-out, absences (**140+ tests**).
- Integrated with the national e-document exchange (**ESEDO**) incl. digital-signature verification. Wrote **640+ pytest tests**.

SmarTestPrep LTD — Astana, Kazakhstan

May 2023 – February 2026

Backend Engineer

- Architected and launched a **gamified LMS** that scaled to **12,000+ active students**, owning backend design end to end.
- Developed a **university admission-probability model** producing ranked recommendations, a core product differentiator.
- **Reduced average API response time by 40%** by refactoring legacy endpoints, adding Redis caching, and removing N+1 queries.
- Provisioned Kubernetes and Nginx for **3 interconnected services, cutting build time by 50% with zero-downtime deploys**.

CourseClick.co — Astana, Kazakhstan

December 2024 – October 2025

Co-Founder & Chief Technology Officer

- Co-founded an ed-tech platform and owned all architecture and infrastructure decisions, growing it to **600+ paying users**.
- Built and shipped a **production RAG/LLM system** on FastAPI and pgvector, adding AI-driven functionality to the core platform.
- Engineered the **backend behind core LMS functionality** on Django/FastAPI, PostgreSQL, and Celery, sustaining continuous traffic growth.
- Designed a **Kubernetes-based AWS environment** with CI/CD and monitoring, shortening deploy cycles and **cutting infrastructure cost**.

MedTour — Astana, Kazakhstan

October 2022 – May 2023

Backend Developer

- Shipped marketplace features for an international medical tourism platform, **improving page load times by 30%** via query optimization.
- Integrated **10+ medical institutions**, normalizing inconsistent partner data into a unified API contract.

Panda Innovation — Astana, Kazakhstan

March 2022 – September 2022

Python Developer

- Built the backend for a multi-store retail goods-acceptance system, **raising data throughput by 50%** and **cutting acceptance time by 30%**.

EDUCATION

Astana IT University — Astana, Kazakhstan

September 2020 – May 2023

B.S. in Computer Science · GPA: 3.54 / 4.0