Rakhat Yskak

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Overview

Software engineer with 5+ years of hands-on experience in systems programming, web development, and distributed systems. **Willing to relocate, Kazakhstani citizen.**

Education

Nazarbayev University — *Astana, Kazakhstan*
MS in Computer Science — *Sep 2024 – present*
- GPA: 3.67/4.0

Astana IT University — *Astana, Kazakhstan*
BS in Software Engineering — *Sep 2021 – Jun 2024*
- GPA: 3.56/4.0, High Honors

Experience

Junior Software Engineer — *Astana, Kazakhstan*
Business & Technology Services LLP — *Dec 2025 – present*

A 3D web-based platform for digital twin of 15 enterprise industrial sites, built with Rust, WebAssembly (WASM), WebGPU and Bevy engine.
- Designed recording plugin with configurable sampling rates for performance diagnostics and benchmarking.
- Developed transport plugin using raycasting to project GPS-tracked vehicles onto 3D models.

Junior Software Engineer — *Astana, Kazakhstan*
ROKY.ROCKS — *Jun 2023 – Sep 2023*

Real-time score tracking system for 20+ schools implementing long polling for improved data reliability.
- Acted as cross-functional engineer in Agile environment, resolving critical UI rendering and email delivery issues for 500+ concurrent users.

Projects

TCP-AAD | C, Python, Bash, iperf3, tc, Jupyter notebooks — *Nov 2025 – present*
Evaluated TCP Adaptive Acknowledgment Delay optimized for Wi-Fi frame aggregation. Modified Linux kernel TCP stack to implement microsecond-precision adaptive acknowledgment for Wi-Fi 802.11n/ac aggregation bursts.

CUDA Lab | CUDA, C++
Advanced GPU programming with templated kernels for matrix operations, shared memory optimization, and cuRAND integration for performance benchmarking on NVIDIA hardware.

Blogging Platform | Rust, TypeScript, S3, PostgreSQL, gRPC — *Astana, Kazakhstan / Spring 2024*
Full-stack platform with RESTful API using CRDT for merge conflict resolution, enabling simultaneous Markdown editing. Microservices architecture with gRPC communication.

Newsletter | Rust, PostgreSQL, DigitalOcean — *Astana, Kazakhstan / Jan 2025 – Feb 2025*
Newsletter management system with RESTful API, email delivery with retry mechanisms. Deployed on DigitalOcean using Docker and CI/CD pipelines.

Skills

Languages: Rust, C++, C, CUDA, TypeScript, Python, Go, SQL

Technologies: Git, Docker, PostgreSQL, gRPC, REST API, WebAssembly, WebGPU, CI/CD, Linux Kernel, Parallel Computing, Multithreading, Microservices, Agile

Spoken: English (fluent), Kazakh (native), Russian (bilingual)