

Rakhat Yskak

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Overview

Software engineer experienced in systems programming, backend development, and GPU computing, building industrial-scale production systems at Kazakhstan's #1 IT company by tax revenue. **Willing to relocate, Kazakhstani citizen.**

Education

Nazarbayev University, MS in Computer Science – Astana, Kazakhstan Sept 2024 – June 2026

- GPA: 3.52/4.0
- **Thesis:** Evaluated TCP Adaptive Acknowledgment Delay under various Wi-Fi scenarios.
- **Teaching Assistant:** Parallel Systems and GPU Computing.
- Solved 230+ **algorithmic problems** in C++ as a member of the **ICPC programming club**.

Astana IT University, BSc in Software Engineering – Astana, Kazakhstan Sept 2021 – June 2024

- GPA: 3.56/4.0, **High Honors**
- **Relevant coursework:** Algorithms & Data Structures, Operating Systems, Computer Networks

Experience

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

Leading developer of enterprise software and industrial digitalization solutions.

- Built a production **3D digital twins** platform for **15 industrial facilities** using Rust, Bevy, and WebGPU.
- Migrated the rendering pipeline from WebGL to WebGPU and optimized the WebAssembly build pipeline, **improving FPS by 10%** using benchmark data.
- Reduced **HTTP requests by 50%** by implementing a **request coalescing system**, merging concurrent duplicate requests into a single call.
- **Designed and built features from scratch:** real-time sensor data visualization, live GPS asset tracking, and camera recording/playback tooling for performance benchmarking.

Software Engineering Intern, Roky.Rocks – Astana, Kazakhstan June 2023 – Sept 2023

Software outsourcing company providing end-to-end software development services.

- Contributed to sports event management system for **20+ schools** using TypeScript and React.
- Resolved **UI rendering** and **email delivery** issues affecting **500+ users**.

Projects

CUDA Lab (github.com/4ry1337/cuda_lab) Dec 2025 – present

Implemented **CUDA kernels** for matrix operations using templates, **shared memory optimization**, and cuRAND-based benchmarking on **NVIDIA GPUs**.

Newsletter Management System (github.com/4ry1337/newsletter-z2p) Jan 2025 – Feb 2025

Engineered a backend system with **RESTful APIs**, **83% test coverage** through unit and integration tests, resilient email delivery with retry mechanisms, and automated **CI/CD** deployment on **DigitalOcean** using **Docker**.

Skills

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

Systems & Tech: Linux Kernel, TCP/IP, Parallel Computing, Docker, PostgreSQL, CI/CD, Git

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