

# Rakhat Yskak

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github.com/4ry1337

Motivated software engineer with hands-on experience in software development with 6+ months of industry experience and 4+ years in Computer Science and a background in Mathematics. **Willing to relocate, citizenship of Kazakhstan.**

## Education

<b>Nazarbayev University</b> , MS in Computer Science	Aug 2024 – May 2026
• GPA: 3.67/4	
<b>Astana IT University</b> , BS in Software Engineering	Sept 2021 – Jun 2024
• GPA: 3.56/4.0	

## Experience

<b>Rust Developer   Intern</b> , Quartz Blockchain Development	Apr 2025 - May 2025
• Developed Telegram Mini-Apps using DDD and TDD.	
• Refactored frontend using feature-slice design.	
• <u>Leveraged Knowledge</u> in Rust, Telegram API, DigitalOcean, React, Feature-Slice Design.	
<b>Junior Software Engineer</b> , ROKY.ROCKS	May 2023 - Aug 2023
• Developed web service used by school league tournaments to stream matches.	
• Optimized Web Socket service to improve stability by implementing long-pooling.	
• Resolved critical business issues by troubleshooting UI, Web Socket server, and email notification issues.	
• <u>Leveraged Knowledge</u> in Git, TCP/IP Sockets, Caching, Locally Persistent Data, debugging Microservice Systems.	

## Projects

<b>Blogging Platform</b>   <i>Next.js, Rust, SQL</i>
• Developed a blogging platform for sharing digital creator stories with the audience as adiploma project, graded 95% within 3 months.
• Utilized CRDT collaborative editing and rich media features to enhance collaboration and user retention.
• Implemented efficient inter-service communication using a microservices architecture with Saga pattern.
• <u>Utilized</u> Axum, Next.js, gRPC, PostgreSQL, MinIO, Docker.
<b>Maze Generation &amp; Pathfinding</b>   <i>Rust</i>
• Developed a maze generator using Prim's algorithm and implemented A* pathfinding to find optimal routes.
• Optimized pathfinding efficiency by integrating a Min-Heap structure for f-score selection, reducing computational overhead and improving algorithm performance.
<b>Huffman Compression</b>   <i>Rust</i>
• Designed and implemented canonical Huffman encoding and decoding algorithms to achieve efficient data compression.
• Optimized the decoding process by leveraging symbol-frequency pairs, resulting in faster lookups and improved overall performance.

## Technical Skills

**Languages:** (*proficient:*) Rust, C, (*familiar:*) SQL, Python, TypeScript, HTML/CSS  
**Software:** (*proficient:*) Git, Unix (*familiar:*) Docker, PostgreSQL.  
**Frameworks:** Actix-web, Axum, NextJS.