# Alambek Gulamidinov

#### EXPERIENCE

NEPLA Co.

Seoul, South Korea

Mar 2024 - Present

Software Engineer

- Implemented Redis Cache Tagging to manage and invalidate cache entries, achieving up to 10 times faster object retrieval.
- Engineered a JWT-based authentication and authorization system for the user management app, improving security and user session management across 2 different projects.
- Developed REST APIs for server operations, focusing on secure, scalable, and maintainable code practices.
- Optimized expert score calculation by normalizing the database and implementing a cron scheduler, making top experts calculation **3x faster**.

Stack: NestJS, Postgres, Prisma ORM, AWS, React, NextJS, Redis, TypeScript

PAL Lab

Ulsan, South Korea

Software Engineer, Intern

Mar 2023 - Jun 2023

- Automated image processing techniques, achieving a 2x reduction in manual adjustment time by implementing spatial cutoff adjustments with Gaussian blur.
- Facilitated seamless data synchronization between Android SQLite and server databases, ensuring the integrity
  of 1000+ survey questionnaires storage in the cloud.
- Resolved critical server-side user authentication/authorization issues by overhauling code and establishing secure cloud connectivity.

Stack: Java, Express.js, MongoDB, Passport.js, OpenCV, JavaScript

## **OnSquare**

Seoul, South Korea

Software Engineer, Intern

Dec 2022 - Feb 2023

- Upgraded video and image adjustments through multithreading with the Worker API, improving processing time for images and videos by 3 times.
- Engineered a comprehensive History module, enabling robust undo/redo functionality.
- Spearheaded the development of a TeX-rendered math expression viewer, enhancing the readability and accessibility of  $\mathbf{over}$  60% of complex mathematical formulas on the platform.

Stack: Node.js, KaTeX, TypeScript, Redom

Software Engineer, Intern

Jan 2022 - Mar 2022

- Achieved a **2.4x speed** increase in audio processing by migrating the audio editor to the Web Audio API, resulting in a faster processing pipeline.
- Designed 3 types of interactive charts for data and audio parameter visualization, improving user engagement and understanding of complex data sets.
- Optimized audio data conversion algorithm by 2x and reduced codebase by 30%.

Stack: Redom, JavaScript, D3.js, Aurora.js

## **EDUCATION**

## Ulsan National Institute of Science and Technology (UNIST)

Ulsan, South Korea

Bachelor of Computer Science and Engineering

Aug 2019 - Feb 2024

Ranked 10th among young universities and 175th worldwide by THE 2023

#### AWARDS AND ACTIVITIES

## Microsoft Learn Student Ambassador, Aug 2023 - Feb 2024

Promoted leadership and fostered a strong tech community by organizing 2+ events and mentoring peers in technical and career development.

### Advanced Programming, Teaching Assistant (UNIST), Feb 2023 - May 2023

Assisted course instructor helping 50+ students to learn C/C++ and programming fundamentals. Mentored freshmen in data structures and algorithms.

Eurasian Team Olympiad in Informatics: Bronze medal, Dec 2017 National Olympiad in Computer Science: 3rd place, Mar 2017 Asia-Pacific Informatics Olympiad: Honorable Mention, May 2016

#### **PROJECTS**

Event discovery app | JavaScript, Express.js, PostgreSQL, React.js

Designed a full-stack calendar web application with event discovery and 3+ additional features from scratch.

## Pantry Tracker App | Next.js, React.js, Firebase, Vercel

Built and deployed a pantry inventory app with camera integration for capturing and tracking food items, hosted on Vercel with Firebase backend for real-time data management.