

Ali Rıza Aynacı

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Summary

I'm a computer engineering student interested in backend development, distributed systems, and building things that scale. I enjoy learning by doing, exploring real-world problems, and contributing to open-source projects whenever I can.

Education

Erciyes University, BS in Computer Engineering

Expected May 2027

- English Preparatory Class GPA: 86/100
- Transitioned from Electrical & Electronics Engineering to Computer Engineering in 2023

Experience

Software Engineer, Momentum Rocket Team (TEKNOFEST)

2023 – 2025

- Built an Arduino-based telemetry system for rocket flights, collecting real-time data at **5 Hz** from 8+ onboard sensors
- Applied a Kalman filter to smooth altitude readings, improving noise resilience and enabling accurate parachute deployment
- Developed a C# desktop interface to visualize and store telemetry data received via serial communication
- Led the 5-person embedded software team, overseeing development, integration, and flight testing

Projects

RLaaS – Rate Limiting as a Service *[In Progress]*

github.com/AliRizaAynaci

Tech Stack : Go, Redis, PostgreSQL, Docker, OAuth2

- Building a scalable, multi-tenant rate limiting service with Redis sharding and PostgreSQL-backed configuration
- Developing a web dashboard (Next.js) with Google OAuth login for project-based API rule management
- Exposes REST endpoints for real-time rate limit checks, targeting SaaS integration scenarios
- Containerized setup with Docker Compose; planned deployment on Railway with full observability support

GoRL – High-Performance Rate Limiting Library

github.com/AliRizaAynaci

Tech Stack : Go, Redis, GitHub Actions

- Designed and implemented a modular, production-grade rate limiter in Go, supporting Token Bucket, Sliding Window, Fixed Window, and Leaky Bucket algorithms → Benchmarked at **89–504 ns/op** with low memory usage and allocations (AMD Ryzen 7 4800H)
- Architected clean, interface-based storage for Redis and in-memory (extensible to NATS/SQL)
- Delivered **95%+ test coverage** and CI/CD via GitHub Actions
- Reached **83+ GitHub stars** and published detailed performance benchmarks

Other Projects (archived)

- Java Spring Boot apps: e-commerce backend, flight reservation, and fleet management — included JWT auth, REST APIs, and CI/CD with Docker GitHub Actions

Skills

Languages: Go, Java, C++,

Technologies: GitHub Actions, Docker, Spring Boot, SQL, NoSQL, Redis, Git

Concepts: OOP, Design Patterns, Clean Architecture

Technical Writings

- Rate Limiting – Deep Dive
- Go and MongoDB
- Concurrency in Go
- Onion Architecture
- Overview of Linked Lists
- CQRS Pattern
- Strategy Pattern

Certificates

- Data Structures & Algorithms – Udemy
- Graph Algorithms – Stanford Univ. (Coursera)
- Microservices with Spring Boot & Cloud – Udemy