

Grigoriy Mhitarian

Backend Developer

Saint Petersburg, Russia

✉: exclide1@gmail.com

☎: +7 (921) 414-58-08

🐙: github.com/xcvtt

📧: @xcvtt

EDUCATION

- **ITMO University** Saint Petersburg, Russia
Bachelor of Information Technologies and Programming
Sep. 2021 - Aug. 2025
Courses: Algorithms and data structures, Object-oriented programming, Operating systems, Databases, Computer Networks, Computer architecture, Multithreaded programming

SKILLS

- **Languages** C++, C, C#, Java, Go, SQL
- **Frameworks** Boost.Asio, Boost.Beast, Qt6, STL, .NET Core, Java Spring
- **Tools** Git/github, protobuf, gRPC, REST, Kafka, Docker/docker-compose, PostgreSQL, github actions, arch linux

PROJECTS

- **Chat app - C++, Boost.Asio/Beast, Qt6** 🐙 github.com/xcvtt/asio-server 🐙 github.com/xcvtt/asio-client
Client-server chat application
 - Implemented asynchronous Websocket chat-server using Boost.Beast
 - Implemented http-server for authenticating users
 - TLS socket traffic encryption, JWT-tokens for authorization
 - Postgresql for the database, using libpqxx
 - Client side implemented with Qt6 UI/Network
 - Used vcpkg package manager and CMake for build automation
 - Unit-test code coverage using GoogleTest
- **Pool Allocator - C++, STL** - 🐙 github.com/xcvtt/pool-allocator
Custom lock-free memory allocator, compatible with STL data structures
 - Implemented multithreaded lock-free allocation algorithm
 - Implemented pool/arena memory allocator using stack data structure
 - Used Google Benchmark for comparing performance of lock-free vs mutex/spinlock multithreading and performance of the standard vs pool memory allocator
- **Message aggregator service - C#, ASP.NET Core** - 🐙 github.com/xcvtt/message-aggregator
Message aggregator service with Clean Rich architecture, DDD
 - Application split into layers: domain (entities), use-cases (services), infrastructure (db), presentation (web)
 - Rest API, cookies for authentication/authorization
 - CQRS pattern as the service layer
 - PostgreSQL + ORM EF Core
 - Unit tests
- **Movie service - Go, protobuf, gRPC, REST, Docker** - 🐙 github.com/xcvtt/movie-service
Movie/director REST api
 - Dockerfile, docker-compose from the app, database and migrations
 - REST API, remote procedure call with gRPC, JWT token auth
 - CI github actions - build/test/lint (golanci-lint)
- **Car model API - Java, Spring Boot, Docker, Kafka**
Web application with a microservice architecture
 - Kafka message broker for communicating services
 - Spring Security, JWT-token for authorization
 - PostgreSQL + ORM Spring Hibernate
 - Flyway for db migrations
 - REST, Swagger
- **Rubik's cube - C++, STL**
Rubik's cube visualization and solving algorithms
 - Used GLUT library for cube movement visualization and imgui for the UI
 - Implemented Old Pochmann blind cube solving algorithm
 - Implemented genetic solving algorithm