Anton Ugarov

Highly qualified Software Engineer with 6+ years of expertise in C++ development. Specializing in high-performance backend systems and real-time data processing.

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SKILLS

Programming:
- C++ 11-20
- STL
- Boost
- Python

Core Concepts:
- Multithreading
- Performance Optimization
- Metaprogramming

Networking:
- TCP/IP
- HTTP
- Protobuf

Databases:
- PostgreSQL

Tools:
- CMake
- Bash
- Git
- Linux
- Docker / Compose

Soft Skills:
- Responsibility
- Attention to Detail
- Effective Communication
- Problem-Solving
- Initiative
- Cross-Functional Collaboration

LANGUAGES

English / C1
Russian / native
German / A1 (learning)

EDUCATION

STATE ELECTROTECHNICAL UNIVERSITY "LETI"
BS in Computer Science
2015 - 2019 | St. Petersburg
Computer Systems Engineering and Informatics
Specialization: Computer Aided Design Systems
Cum. GPA: *4.57 / 5.0*
Major GPA: *4.60 / 5.0*

EXPERIENCE

SELF EMPLOYED | Senior Software Engineer
Apr 2024 - PRESENT | Zürich, Switzerland
Collaborating with a dynamic startup in a fast-paced environment. Developing a **high-load C++20 backend** for real-time telemetry and event aggregation, efficiently processing and manipulating **large-scale data streams** at 200Mbps per core.
- ➤ Leveraged C++ **coroutines** with the Seastar framework for efficient concurrency.
- ➤ **Improved overall data throughput by 50%** and reduced service memory consumption by 30% by optimizing a single component in the system.
- ➤ Utilized the Ragel state machine compiler **reducing the parsing time** of standard event formats (SyslogBSD, CEF) by 70%.
- ➤ Led availability enhancements, **eliminating downtime** during service upgrades
- ➤ **Built a sandbox service** for debugging data aggregation with step-by-step insights.
- ➤ **Reverse-engineered** and implemented a proprietary 3rd-party binary protocol.

Stack: *C++20 / Seastar / Boost / Ragel / Docker / AWS / Python / Jinja / MongoDB / Go*

WANNA | Senior Software Engineer
Jun 2022 - Apr 2024 | Limassol, Cyprus
Developed a **lightweight cross-platform C++20 library** enabling immersive AR try-on experiences on **mobile devices**.
- ➤ **Designed a universal C API** for seamless interaction with native frontends.
- ➤ Built a **generic 3D viewer** with smooth animations and high performance at 60FPS, establishing it as a core offering for the company.
- ➤ **Optimized 3D rendering pipelines** for enhanced real-time performance.
- ➤ **Integrated a new render engine** unlocking realistic reflections and materials.

Stack: *C++20 / Objective-C / OpenCV / Metal / CoreML / CMake / Conan / GoogleTest*

YANDEX | Software Engineer
Mar 2020 - May 2022 | St. Petersburg, Russia
Developed a **high-load C++17 backend** for Yandex.Messenger, serving 20kRPS, with a focus on efficient and secure asynchronous code to ensure **system resilience**.
- ➤ Contributed to **core service components**: Json/Protobuf APIs, message processing pipeline, and data storage (PostgreSQL/YDB).
- ➤ Boosted system scalability by implementing **sharding and load balancing**, resolving bottlenecks in the support-automation service.
- ➤ Optimized in-memory cache storage, **reducing RAM consumption** by 10%.
- ➤ Integrated probabilistic data structures to count unique message views in large channels, **reducing the space complexity** significantly.
- ➤ Gained Python experience while **developing the auxiliary services**.

Stack: *C++17 / Python / Protobuf / PostgreSQL / YDB*

TENSOR | Software Engineer
Jun 2018 - Feb 2020 | St. Petersburg, Russia
Developed a **cross-platform C++14 / Boost library** for the business logic of an **Android/iOS** courier app.
- ➤ **Redesigned architecture**, cutting time-to-market for new features by 30%.
- ➤ Developed a middle-end layer to **integrate the backend with platform-native frontends** using JsonRPC and Djinni-generated bridges.
- ➤ **Mentored a junior developer** to independently deliver key features in 6 months.
- ➤ Built a generic **component for automatic data caching** to a local SQLite DB.

Stack: *C++14 / Boost / JNI / Djinni / SQLite / Conan / CMake / Boost.Test*