Vyacheslav Napadovsky

Senior Software Engineer — Algorithms, Distributed Systems & Reliability

Email: napadovskiy@gmail.com
GitHub: https://github.com/slavanap
LinkedIn: https://www.linkedin.com/in/napadovsky/
StackOverflow: https://stackoverflow.com/users/1836540/vyacheslav-napadovsky
Location: Open to Remote Opportunities

Professional Summary

Senior Software Engineer with 10+ years of experience developing high-performance algorithms, distributed systems, backend infrastructure, and reliability-focused platforms. Strong background in routing and scheduling systems, parallel computing, optimization, CI/CD automation, cloud infrastructure, and large-scale data processing.

Experienced across both research and production environments, with expertise spanning C++, C#, CUDA, SQL, concurrent systems, cloud-native infrastructure, and real-time services. Proven ability to design scalable architectures, modernize legacy systems, improve deployment reliability, and deliver performance-critical software.

Target roles include:

- Algorithm Engineer
- Research Engineer
- Senior Backend Engineer
- Distributed Systems Engineer
- Reliability / Infrastructure Engineer
- High-Performance Computing Engineer

Technical Skills

Programming Languages

C, C++, C++20, C#, Python, SQL, Lua, Java, Assembly

Backend & Distributed Systems

Distributed Systems, High-Load Services, REST APIs, Concurrent Programming, Parallel Computing, Caching, Real-Time Systems, API Integration

Algorithms & Performance

Routing Algorithms, Scheduling Systems, Optimization Algorithms, CUDA, OpenMP, HPC, Multi-threading, Performance Optimization

Cloud & Infrastructure

AWS EC2, AWS ECS, AWS ECR, AWS CodeBuild, Docker, GitLab CI/CD, Continuous Integration, Reliability Engineering

Databases

PostgreSQL, MySQL, Firebird

Platforms & Tools

Linux, Windows, CMake, Git, Qt, Selenium, SignalR

Languages

English (Advanced), Japanese (Advanced), Russian (Native)

Professional Experience

2GIS

Software Developer

Jul 2024 – Present

- Develop and improve large-scale mobile platform functionality in C++ for iOS and Android.
- Contribute to user-generated content and real-time location-related platform features.
- Improve platform reliability and maintainability for production mobile systems.

Sentry Management Solutions

Senior Software Architect

Mar 2019 – Jul 2024

- Architected and developed a fully automated vehicle scheduling and routing platform supporting real-time operational optimization.
- Designed scalable backend services for route planning, trip assignment, and driver scheduling.
- Implemented disaster recovery and reliability strategies for critical production systems.
- Integrated external mapping and live traffic APIs including OSM, OSRM, and Mapbox.
- Modernized deployment workflows by implementing Docker-based infrastructure and GitLab CI/CD pipelines.
- Automated testing and quality assurance processes using Selenium and static analysis tooling.
- Optimized SQL-heavy workloads and backend data processing pipelines.
- Built and maintained cloud infrastructure using AWS EC2, ECS, ECR, and CodeBuild.
- Worked extensively with C#, SQL, PHP, parallel computing, caching systems, and high-load backend services.

Technologies: C#, SQL, Docker, AWS, GitLab CI/CD, MySQL, Selenium, OSRM, Mapbox, OSM

Yandex N.V.

Software Engineer — Video Search Infrastructure

Mar 2017 – Feb 2018

- Developed automated data-processing pipelines for large-scale video search infrastructure.
- Improved video search relevance through metadata propagation and duplicate-content analysis.
- Built systems for automated voiceover-studio label extraction using internal TensorFlow-based audio pattern matching.
- Worked with distributed data-processing infrastructure and Hadoop-like systems.
- Contributed to scalable backend processing and search-quality improvement pipelines.

Technologies: C++, Python, SQL, Distributed Systems, Containers, Big Data Processing

---

Wizarlabs, Inc.

Senior Software Developer

May 2014 – Mar 2015

- Designed integration layer between Lua scripting and a custom C++ game rendering engine.
- Improved reliability of game-state save/load functionality using Protocol Buffers.
- Developed internal tooling for game localization and 3D-scene configuration using Qt.
- Enhanced Lua-driven UI systems for iOS applications.

Technologies: C++, Lua, Qt, Protocol Buffers, iOS

Moscow State University — Graphics & Media Laboratory

Researcher / Software Developer

Jun 2011 – May 2014

- Developed algorithms for stereoscopic video quality analysis and color-correction optimization.
- Improved motion-estimation algorithms for robustness against local color inconsistencies.
- Contributed to automated 3D video quality measurement platform (VQMT3D).
- Added geometry- and color-distortion metrics to large-scale video-analysis tooling.
- Scaled quality-analysis systems to process over 100 full-length Blu-ray 3D movies.
- Led a student research group preparing analytical reports for international stereoscopic film festivals.
- Published open-source tooling for Blu-ray 3D frame extraction and processing.

Technologies: C++, CUDA, OpenMP, Video Processing, Parallel Computing, Algorithm Development

---

Education

Lomonosov Moscow State University

Master of Science in Applied Mathematics and Computer Science
2009 – 2014

Thesis: Locally Adaptive Algorithm for Detection and Elimination of Color Inconsistencies Between Views of Stereoscopic Video

---

Certifications

NVIDIA CUDA Certification

Massively Parallel Process Programming (CUDA)
2013

Selected Publications

- Vatolin D., Bokov A., Erofeev M., Napadovsky V. “Trends in S3D Movies Quality as Evaluated on 105 Movies and 10 Quality Metrics”, Proceedings of Stereoscopic Displays and Applications XXVII, 2016.
- Voronov A., Vatolin D., Sumin D., Napadovsky V., Borisov A. “Methodology of Stereoscopic Motion Picture Quality Assessment”, SPIE-IS&T Electronic Imaging, 2013.
- Voronov A., Vatolin D., Napadovsky V., Sumin D., Borisov A. “Towards Automatic Stereo-video Quality Assessment and Detection of Color and Sharpness Mismatch”, IC3D, 2012.

Open Source & Projects

Sweetie Bot Project (https://gitlab.com/sweetie-bot)

- Configured automated Debian package builds and repository publishing through GitLab CI.
- Built automated multi-platform ROS package delivery pipelines.
- Focused on CI/CD reliability and deployment automation.

Additional Experience

- High-performance video-processing systems
- CUDA and parallel-computing optimization
- Reliability-focused infrastructure modernization
- CI/CD automation for legacy software
- Real-time scheduling and routing systems
- Large-scale backend architecture