

Aliaksei Ivanou | C++ Software Engineer

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Skills

- C/C++, MATLAB, Java, Scala, Ruby, JavaScript.
- Amazon Web Services, Qt, FLTK GUI Library, Point Cloud Library, Git, GitHub, BitBucket, Jenkins, CMake, gdb, GoogleTest, MySQL, SQLite, PostgreSQL.
- OOP, Agile, Scrum, Debugging, Troubleshooting.
- Aerospace, Satellite Systems, Embedded Systems, FinTech, Geoinformatics, Oil & Gas.

Experience

C++ Software Engineer | Innowise Group | 12.2024 - Present

Innowise is a global software development company founded in 2007, with 2000+ professionals. It has delivered 1300+ projects for 300+ clients, specializing in Big Data, AI, RPA, IoT, AR/VR, and Blockchain.

Junior C++ Software Engineer, C++ Software Engineer | EPAM Systems | 09.2021 - 08.2024

Since 1993, EPAM Systems (NYSE: EPAM) has been a leader in digital engineering, cloud, and AI services, with 50,000+ employees and clients across six continents, recognized for innovation and IT consulting leadership.

Project 1:

- Supported a C++17-based system for the oil and gas industry, refactoring 30% of the codebase, fixing 20+ bugs, and improving system stability by 15% through legacy code removal and optimization.
- Enhanced performance by optimizing database queries, reducing processing time by 20%, improving codebase efficiency, and increasing user satisfaction by 10%.

Skills: C++17, MySQL.

Project 2:

- Served as Key C Developer on a 40+ year-old library system, refactoring 20% of the codebase, resolving 100+ bugs, and improving system reliability by 25% and functionality by 15%.
- Led feature development with a team of 2-3 developers, ensuring efficient integration of C code across languages and improving feature delivery time by 20%, while maintaining constant communication with the client's team for a 30% reduction in integration time.
- Delivered bi-weekly sprint demos to client department heads, improving client satisfaction by 10%, and contributed to reducing system errors by 40% while resolving complex issues remotely using SSH and gdb.

Skills: C89, Java 11, Scala, apache, Amazon Web Services, gdb, SSH, git, BitBucket, Jira, Jenkins.

C++ Software Engineer | Freelance | 01.2020 - 08.2022

Project 1:

- Completed exercises from Programming: Principles and Practice Using C++ (2nd Edition) by Bjarne Stroustrup, mastering C++ fundamentals, OOP, templates, and advanced C++ features.
- Developed graphical applications with FLTK GUI Library, managing projects with Git for version control and Visual Studio for coding, debugging, and organization.

Skills: C, C++11, Git, GitHub, FLTK GUI Library, Visual Studio.

Project 2:

- Created a home accounting app with an intuitive FLTK-based interface for transaction entry and financial analysis, integrating SQLite for efficient data management.
- Employed GoogleTest for application reliability, plog for error logging, and CMake for build automation to improve development workflow.
- Developed custom financial analysis tools, enhancing user experience and providing actionable insights into spending patterns.

Skills: C++11, Git, GitHub, FLTK GUI Library, Visual Studio, plog, SQLite, CMake, GoogleTest.

C++ Software Engineer | RIFTEK | 03.2022 - 05.2022

RIFTEK develops optoelectronic instruments for measuring geometrical quantities, including laser sensors, 2D/3D scanners, and machine vision systems, serving over 70 countries with representation in 45.

- Developed software for 3D model generation using three or more 2D laser sensors..
- Implemented C++ applications with the Point Cloud Library on Qt.

Skills: C++11, Qt, Point Cloud Library.

Research & Development Aerospace Engineer | PELENG | 08.2012 - 01.2020

PELENG is a Belarusian developer and manufacturer of high-tech defense, security, and industry systems, specializing in optoelectronic products like thermal sights, surveillance, space and UAV systems, with 3500+ employees, emphasizing innovation and collaboration with public and private sectors.

- Optimized image processing algorithms for 10+ Earth observation satellites, enhancing data quality and improving processing efficiency by 40%.
- Developed and implemented an ADPCM compression algorithm for satellites, achieving 3-4x lossy compression while maintaining image integrity and reducing hardware computational load.
- Created software for satellite image stitching and defect removal, reducing post-processing time by 60%, and improving image quality by removing dust and stitching artifacts.
- Designed and deployed resolution assessment software for flight tests, accelerating image analysis by 5x and enhancing evaluation accuracy, while leading in-orbit flight tests and achieving 100% mission success across multiple satellite launches.
- Developed predictive models and sensor quantization software, reducing data loss by 15%, improving Earth observation accuracy by 20%, and designing database systems and web interfaces to improve satellite data retrieval time by 70%.

Skills: MATLAB, C++11, System Tool Kit, Ruby, Ruby On Rails, PostgreSQL, Microsoft Access..

Satellite Monitoring Systems Engineer | ITSZEM | 07.2010 - 05.2012

ITSZEM specializes in land management and geoinformatics, with licenses for surveying, geodesy, cartography, and GIS, focusing on LIS, monitoring, digital maps, and navigation research.

- Installed and connected ~200 satellite monitoring terminals across 10+ cities, enabling real-time tracking for 50+ clients.
- Configured the server monitoring system, reducing integration time by ~30% and improving system uptime to 99%.
- Streamlined equipment acceptance and repair processes, cutting vehicle downtime by 20-25% and ensuring efficient operations.
- Led on-site installations for light vehicles and trucks, ensuring accurate setup and minimizing installation errors.
- Coordinated with manufacturers for timely and cost-effective procurement, delivering client support and training that improved client satisfaction by 15%.

Education

- Programming course. C++ EPAM Systems Laboratory : EPAM Systems, Inc., 05.2021 - 08.2021
- Programming course. C++ EPAM Systems Mentoring Program : EPAM Systems, Inc., 05.2020 - 08.2021
- Programming course. C++ Programming : IT-Academy.by, 03.2018 - 05.2018
- Higher education. Radiophysics. Satellite information systems and technologies : Belarusian State University, 09.2007 - 07.2012

Languages

- Russian (Native)
- Belarussian (Native)
- English (Upper Intermediate)
- Swedish (Basic)
- Polish (Intermediate)