

Aliaksei Ivanou | C++ Software Engineer

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12+ years of experience in software development, specializing in **image processing**, **satellite systems**, and **embedded systems**. **7.5 years** as a **MATLAB developer**, focusing on image processing for 10+ Earth Observation satellites and UAVs, developing algorithms for image compression, stitching, and sensor calibration to enhance image quality and processing efficiency. **3 years** as a **C/C++ developer**, contributing to diverse projects with varying technical stacks and collaborating with distributed teams across different countries and time zones.

Seeking a position in Poland, preferably in Warsaw, with hybrid work options. Valid residence permit for Poland. Passionate about Image Processing, and Embedded Systems. Skilled at optimizing and restructuring legacy systems.

Experience: Innowise Group, EPAM Systems, PELENG.

Key projects: Library System, Oil & Gas Corporate System, UAV Software, Satellite Image Processing Software.

Skills

- **Languages & Frameworks:** C, C89, C++, C++11, C++17, MATLAB.
- **Infrastructure & Cloud:** Amazon Web Services (AWS).
- **Development Tools:** git, GitHub, BitBucket, Jira, Jenkins, GCC, gdb, CMake, Visual Studio, FLTK GUI Library, plog logger, GoogleTest, Point Cloud Library, System Tool Kit.
- **Development Practices:** Test-driven development, CI/CD pipelines, Agile methodologies, Scrum methodology, Kanban methodology, Code review.
- **Databases & Storage:** PostgreSQL, MySQL, SQLite, Microsoft Access.
- **Core Areas:** Aerospace, Satellite Systems, UAV 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.

• **Conducted** code reviews to ensure quality and maintainability, supported **4** new **developers** through onboarding and mentorship, improved documentation and best practices, and conducted **2** technical **interviews**.

Skills: C, C++.

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.

• **Worked on 2 projects** with different tech stacks, adapting to both legacy systems and modern languages to meet project and client requirements.

• **Supported** a **C++17**-based Oil & Gas Corporate System, developed **4+ user-requested features**, enhancing functionality and improving system stability by **10%** through legacy code removal and optimization.

• **Enhanced user experience** in Oil & Gas Corporate System by optimizing database queries, reducing processing time by **15%** and increasing codebase efficiency.

• **Served** as a **Key C Developer** on a 40+ year-old Library System, optimizing **20%** of the codebase to enhance maintainability and performance, which improved system reliability by **25%** and boosted functionality by **15%**.

• **Improved user experience** in the Library System by designing and implementing **12+ user-requested features**, greatly enhancing system capabilities and overall functionality.

• **Led feature development** with a team of **2 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.

Skills: C, C89, C++, C++17, Java 8, Java 11, Scala, Apache, Amazon Web Services (AWS), gdb, SSH, git, BitBucket, Jira, Jenkins, Linux, MySQL, PostgreSQL.

C++ Software Engineer | Freelance | 04.2020 - 06.2021

- **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.

MATLAB Software 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 boosting processing efficiency by **40%**.
 - **Developed** and **implemented** an **ADPCM compression algorithm** for satellites, achieving **3-4x lossy compression** while preserving image integrity and reducing computational load.
 - **Created** software for satellite image stitching and defect removal, cutting post-processing time by 60% and improving quality by eliminating dust and stitching artifacts.
 - **Designed** and **deployed** resolution assessment software for flight tests, accelerating image analysis by 5x and enhancing accuracy, while leading in-orbit tests and ensuring 100% mission success.
 - **Developed** predictive models and sensor quantization software, reducing data loss by **15%**, improving Earth observation accuracy by **20%**, and optimizing satellite data retrieval by **70%**.
 - **Built** digital image processing modules for UAVs in MATLAB, including debayering, stabilization, format conversion, and sensor fusion for better target recognition.
 - **Developed** a software module to calculate the center frame coordinates and calibrated the IMU sensors for a UAV, improving coordinate accuracy by **30%** for precise georeferencing.
 - **Participated** in **30+ UAV test flights** as a **payload operator**, evaluating and testing the performance of developed software modules to ensure system functionality and accurate data acquisition.
- Skills:** MATLAB, C++11, System Tool Kit, Ruby, Ruby On Rails, PostgreSQL, Microsoft Access.

Education

- Programming course. C++ EPAM Systems Laboratory : EPAM Systems, 05.2021 - 08.2021
- Programming course. C++ EPAM Systems Mentoring Program : EPAM Systems, 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)

Consent To Data Processing

Wyrażam zgodę na przetwarzanie moich danych osobowych zawartych w niniejszym CV dla celów obecnych i przyszłych procesów rekrutacyjnych zgodnie z art. 6 ust. 1 lit. a ogólnego rozporządzenia o ochronie danych osobowych z dnia 27 kwietnia 2016 r. (RODO).