

Aliaksei Ivanou

SOFTWARE ENGINEER

- 7.5 years' experience in development optical sensors for satellites and unmanned aerial vehicles and software for it.
- 3 years' experience in C/C++ software development.
- Languages: English B1+, Swedish A2, Polish B1.
- Nationality - Belarus.

I think that C/C++ is interesting for its complexity and applicability in almost all spheres. I'd like to work on interesting projects, with the focus on performance and new features, where I can really use the full power of the C/C++ language. I have experience with languages like MATLAB (desktop applications), Java (web applications), Ruby (web applications), Scala (web applications), LabVIEW (desktop applications). I also had experience developing some applications as part of lab work at the EPAM LAB in C++ (desktop applications).

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📍 Belarus, Minsk

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🌐 github.com/aliaksei-ivanou-by

SKILLS

C++	Visual Studio	Data Structures and Algorithms
MATLAB	LaTeX	Ruby on Rails
Git	Object-Oriented Programming	Java
CMake	Digital Image Processing	LabVIEW

EXPERIENCE

Software Engineer

EPAM Systems Poland, Inc Aug 2022 - Present

Technologies: C, C++11/14/17, Standard Library (STL), JavaScript, HTML, jQuery, Microsoft SQL Server, Microsoft SQL Server Management Studio, Nginx, ReSharper C++, gdb, ssh.

Back-end development:

- work with legacy code.
- participation in bug fixes.
- code review.
- making changes and debug in C++-code.
- making changes and debug in C-code - debug with gdb and compile on remote Linux servers via ssh.
- making changes and debug in Java-code - debug and compile with IntelliJ IDEA.
- making changes and debug in Scala-code - debug and compile with IntelliJ IDEA.
- making some changes in JavaScript-code.
- making some changes in HTML&CSS-code.
- help teammates in solving their tasks.

Software Engineer

EPAM Systems Belarus, Inc May 2022 - Aug 2022

Technologies: C, C++11/14/17, Standard Library (STL), JavaScript, HTML, jQuery, Microsoft SQL Server, Microsoft SQL Server Management Studio, Nginx, ReSharper C++, gdb, ssh.

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- making some changes in HTML&CSS-code.
- help teammates in solving their tasks.

Junior Software Engineer

EPAM Systems Belarus, Inc Sep 2021 - May 2022

Technologies: C, C++11/14/17, Standard Library (STL), JavaScript, HTML, jQuery, Microsoft SQL Server, Microsoft SQL Server Management Studio, Nginx, ReSharper C++.

Back-end development:

- work with legacy code.

- participation in bug fixes.
- code review.
- making changes and debug in C++-code.
- making some changes in JavaScript-code.
- making some changes in HTML&CSS-code.
- help teammates in solving their tasks.

Software Engineer

RIFTEK, LLC Mar 2020 - May 2020

Technologies: C++, Point Cloud Library C++ Library, Open3D C++ Library, Visual Studio.

Software development for obtaining a 3D model using several 2D laser sensors.

Research & Development Engineer

PELENG, JSC Aug 2012 - Dec 2019

Technologies: MATLAB, Ruby on Rails, System Tool Kit, MS Access, PostgreSQL.

- Participation in development of optical sensors for satellites and optical sensor for UAV and flight tests and operation control.
- Development of photo/video processing algorithms (image compression algorithm, debayer algorithm, conversion of image format, stabilization algorithm, image fusion algorithm, analyzing the linear resolution, improving image quality by predicting quantization ranges, etc).
- Development of database of Earth remote sensing satellites with extensive details.

PROJECTS

Home Bookkeeping (Personal)

Software Developer Jul 2020 - Present

Technologies: C++, FLTK Graphics C++ Library, Git, Visual Studio, Google Test, sqlite, plog, CMake.

Home accounting project. The software can be used to record all of your transactions including bills, credit card statements, receipts and more. The bookkeeping software includes all the features that you need to analyze and calculate every aspect of your cash flow.

github.com/aliaksei-ivanou-by/Home_Bookkeeping

C++ Stroustrup Programming (Personal)

Software Developer Jan 2020 - Mar 2021

Technologies: C++, FLTK Graphics C++ Library, Git, Visual Studio.

Exercises solution from Bjarne Stroustrup's book "Programming - Principles and Practice Using C++ (2nd Edition).

github.com/aliaksei-ivanou-by/Stroustrup_Programming

Software modules for UAV (PELENG, JSC)

Software Developer Aug 2018 - Aug 2019

Technologies: MATLAB.

Software modules for digital image processing for Unmanned Aerial Vehicle: debayer algorithm, image format conversion, stabilization algorithm, image fusion algorithm, etc.

Remote sensing satellites DB (PELENG, JSC)

Software Developer Feb 2015 - Feb 2016

Technologies: Ruby on Rails, PostgreSQL, MS Access.

Earth remote sensing satellites database with extensive details.

Linear resolution analysis of images of the Earth surface (PELENG, JSC)

Software Developer Aug 2014 - Mar 2016

Technologies: MATLAB.

Software for analyzing the linear resolution of images from Earth remote sensing satellites by the sharp edge method.

Improving image quality from remote sensing satellite (PELENG, JSC)

Software Developer Feb 2014 - Aug 2014

Technologies: MATLAB.

Software for predicting quantization ranges for the Earth remote sensing satellite "Belarusian Spacecraft". The software requires data from another Earth remote sensing satellite to enter data on the estimated range of the Earth's surface albedo.

Image compression algorithm (PELENG, JSC)

Software Developer Aug 2013 - Feb 2014

Technologies: MATLAB.

Image compression algorithm, Adaptive Differential Pulse Code Modulation (ADPCM), is prediction based image compression technique. Custom ADPCM techniques with multiple quantizers are developed with different compression ratio. Developed techniques are evaluated for both low and high contrast images.

Stitching frames from the Earth remote sensing satellite (PELENG, JSC)

Software Developer *Aug 2012 - Aug 2013*

Technologies: MATLAB.

Software for stitching frames from Earth remote sensing satellites "Belarusian Spacecraft" and a series of satellites "Kanopus-V". In addition to stitching, the software removes optical defects from frames, aligns frames in brightness relative to each other.

EDUCATION

Polish. Level A1 - B1

Accent School of Polish *Sep 2022 - Jul 2024*

Swedish. Level A1 - B2

The Centre for Swedish Studies *Jan 2022 - Jun 2023*

EPAM Laboratory

EPAM Systems Belarus, Inc *Mar 2021 - Aug 2021*

C++. Mentor: Alexander Stepaniuk.

C++ EPAM Mentoring Program

EPAM Systems Belarus, Inc *May 2020 - Aug 2021*

Mentor: Alexander Stepaniuk.

C++ Programming

IT-Academy.by *Mar 2018 - May 2018*

English. Level A1 - B2

Streamline.by *Sep 2015 - May 2017*

Building web applications with Ruby on Rails

Course.by *Feb 2015 - Jun 2015*

Mentor: Michael Rumiansau.

Programming in Java

IT-Academy.by *Oct 2013 - Dec 2013*

LabVIEW – Data Acquisition

Belarusian State University of Informatics and Radioelectronics *Jan 2011 - Jan 2011*

LabVIEW – Basics I

Belarusian State University of Informatics and Radioelectronics *Dec 2010 - Dec 2010*

Radiophysics. Satellite information systems and technologies

Belarusian State University *Sep 2007 - Jul 2012*

CONSENT TO DATA PROCESSING

I agree to the processing of personal data provided in this document for realising the recruitment process pursuant to the Personal Data Protection Act of 10 May 2018 (Journal of Laws 2018, item 1000) and in agreement with Regulation (EU) 2016/679 of the European Parliament and of the Council of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).