Aliaksei Ivanou

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ABOUT ME

See myself as a C++ software engineer. Currently I'm studying on the C++ programming language mentoring program at company EPAM Systems, Inc to improve my language and software development skills. At the university I used to learn this language, but didn't think to make it my main tool. I used to learn Java, Ruby. Nowadays I think that 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++ language. Relocation possible: Belarus (Minsk, Brest), Lithuania, Poland, Ukraine.

DIGITAL SKILLS

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

WORK EXPERIENCE

Software Developer

RIFTEK, LLC [Mar 2020 – May 2020]

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

Development of software for obtaining a 3D model using several 2D laser sensors.

Research & Development Engineer

PELENG, JSC [1 Aug 2012 – 31 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, convertation of image format, stabilization algorithm, image fusion algorithm, etc).

EDUCATION AND TRAINING

C++ EPAM Mentoring Program

EPAM Systems, Inc [May 2020 – Current]

Projects: Home Bookkeeping, C++ Stroustrup Programming.

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]

Projects: Remote sensing satellites DB.

Mentor: Michael Rumiantsau.

Programming in Java
IT-Academy.by [Oct 2012 – 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
Belarussian State University [Sep 2007 – Jul 2012]

PROJECTS

Home Bookkeeping

[20 Jul 2020 – Current]

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

Bookkeeping software provides an essential solution for any organization or individual who needs to improve their degree of control over their budgeting. 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.

https://github.com/aliaksei-ivanou-by/Home_Bookkeeping

C++ Stroustrup Programming

[Jan 2020 – Current]

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

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

https://github.com/aliaksei-ivanou-by/Stroustrup_Programming

Software modules for UAV

[Aug 2018 – Aug 2019]

Technologies: MATLAB.

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

Remote sensing satellites DB

[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

[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

[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

[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

[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.

HOBBIES AND INTERESTS

Hobbies

Bicycle riding; reading books; playing squash; attending thematic conferences, including programming; handball fan.