Vladislav Toigildin

Software Developer

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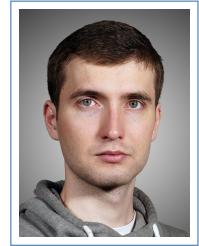
Experience

11.2016 – 01.2019 **Deep Learning Performance Engineer**, *NVIDIA*, Moscow.
Development of a system for benchmarking DL frameworks using GPUs.

- Code development of device Linux driver.
- Development of internal perf tool (C++ and Perl).
- Work with an international team. Regular code review.
- Design, creation and management of test environment.

09.2014 – 08.2016 **Researcher**, *Research Computing Center MSU*, Moscow.
Design and development of a parallel version of the algorithm of repeats search in biological sequence.

- Development of parallel spectral-analytical method for heterogeneous distributed multiprocessing systems.
- Design of object-oriented architecture for encapsulation of IPC and GPU computing.
- Implementation of the parallel program using MPI and CUDA.
- Analysis of efficiency and scalability of parallel program.

06.2015 – 03.2016 **Software engineer**, *IBM*, Moscow.
Development of Linux driver (zfcp) for IBM z System (s390x) storage hardware.

- Code development of device Linux driver.
- Development of internal perf tool (C++ and Perl).
- Work with an international team. Regular code review.
- Design, creation and management of test environment.

11.2013 – 10.2014 **Technician (Part Time)**, *Nuclear Safety Institute of the Russian Academy of Sciences*, Moscow.
Development of a model of hydrodynamic process in liquids using CABARET scheme.

- Design and implementation of GUI (Qt).
- Configuration of development environment.
- Implementation of new features into the main project code (Fortran).
- Teaching the team the basics of *nix and features of HPC software development.

Technical skills

Languages	C, C++, Bash, Assembler, Perl(basic), Fortran(basic)
VCS	Git
OS	GNU/Linux, FreeBSD
HPC	MPI, Cuda, OpenMP
Builder	Make, Autotools
Others	Qt(basic), LaTeX, Gnu plot

Education

2010 – 2015   **MSc (equivalent) in Applied Mathematics and Computer Science**, *Lomonosov Moscow State University*, Moscow, Faculty of Computational Mathematics and Cybernetics.

- Qualification: specialist in mathematics and system programming
- Department of Supercomputers and Quantum Informatics
- Specialization: high performance computing
- Master thesis "Research and development of parallel algorithm for genome blurred repeats search"
- Knowledges: Algorithms and Data structures, Parallel data processing, Operating systems, Databases, Computer architecture and assembler language, Mathematical analysis, Discrete mathematics, Numerical methods and others.

Publications

A.N. Pankratov, R.K. Tetuev, M.I. Pyatkov, V.P. Toigildin, N.N. Popova Spectral analytical method of recognition of inexact repeats in character sequences. – Proceedings of the Institute for System Programming Volume 27 (Issue 6). 2015 y. pp. 335-344. Abstract

V.P. Toigildin Research and development of parallel algorithm for genome blurred repeats search. – CUDA Almanac, 2015 February. – p.12

Awards

2014   **CUDA Center of Excellence MSU Grant**, Moscow.
Won a grant for significant acceleration of computing for my research by using GPU.

Open Source Project

mpiSBARS   Parallel program for recognition of extended inexact repeats in genome. MPI+CUDA model is used for better scalability on heterogeneous high performance systems.

Additional information

Languages	English(intermediate), Russian(native)
Interests	Improv theatre

You can find recent and more detailed version cv here.
Last updated: November 2, 2020

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