

Dmitry Duplyakin

Curriculum vitae

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- Now **Postdoctoral Researcher**
Flux Research Group
School of Computing, University of Utah
- 2017 **Ph.D. in Computer Science**
University of Colorado - Boulder
- 2012 **M.S. in Computer Science**
University of Colorado - Boulder
- 2008 **B.S. in Applied Math and Computer Science (Cum Laude)**
Samara University, Russia

RESEARCH INTERESTS

Cloud: from virtualization to high-level orchestration tools and containers; resource allocation and elasticity management.

High Performance Computing: design and optimization of computing systems; design of experiments for supercomputers.

Machine Learning: Active Learning and other Machine Learning techniques applied to practical system & application performance analysis.

RESEARCH EXPERIENCE

MAY 2015 – PRESENT

University of Utah, Flux Research Group

Research Assistant

Contribute to CloudLab, a large-scale NSF-funded testbed for cloud and distributed systems research, and develop workflows and tools for efficient configuration and experiment management.

AUGUST 2015 – MAY 2017

University of Colorado - Boulder

Research Assistant

Develop and evaluate techniques for predictive modeling in analysis of performance and energy consumption of parallel applications, including codes for Adaptive Mesh Refinement.

MAY 2014 – AUGUST 2014

University of Chicago, Computation Institute

Summer Intern

Work with the Globus Genomics team and develop enhancements to the cloud-based Galaxy science gateway infrastructure.

MAY 2011 – SEPTEMBER 2012

National Center for Atmospheric Research

System Administrator

Cluster administration, performance analysis.

TEACHING EXPERIENCE

- 2016 Prepared and presented hands-on cloud-focused tutorials at NSFCloud For Everyone and GENI Regional Workshop.
- 2011-2015 TAed for Intro to Programming, Principles of Programming Languages, and High Performance Scientific Computing classes at University of Colorado-Boulder.
- 2012 Taught a class "CS1: Intro to Programming" (260 students) at University of Colorado-Boulder.

RECENT PUBLICATIONS

- 2017 Machine and Application Aware Partitioning for Adaptive Mesh Refinement Applications @ **ACM HPDC'17**
- 2017 The Part-Time Cloud: Enabling Balanced Elasticity Between Diverse Computing Environments @ **ScienceCloud'17**
- 2016 Active Learning in Performance Analysis @ **IEEE Cluster'16**

Published and presented papers at **CNERT '16**, **ScienceCloud'15**, **CCGrid'15**, and **ScienceCloud'13**.

PROFESSIONAL SERVICE

- Conference PC member for IPDPS'18.
- Faculty search committee, Dept. of Computer Science, University of Colorado, Spring'17.
- Student volunteer at Supercomputing'16 and IEEE Cluster'13 conferences.
- Mentor for undergraduate and graduate CS students at University of Colorado.

SOFTWARE SKILLS

COMPUTING	MPI, OpenMP, OpenACC, multithreaded, Hadoop, Spark
SYSTEMS	Linux, bash scripting, DevOps with Chef, HPC cluster administration, OpenStack and container management
PROGRAMMING	Python, C, C++, Java, R, MATLAB

REFERENCES

Robert Ricci (advisor in the Flux Research Group)
Jed Brown (advisor at University of Colorado)