Andrei Kashin

Resume

Info

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Research Interests and Motivation

I'm passionate about building tools that make it easy to program many computers to do useful things. This passion extends to involved areas including distributed systems, operating systems, programming languages, networking and computer security. Through the PhD program, I'm seeking to further the knowledge in these areas and advance the scientific understanding on how to effectively program large distributed systems.

Education

2015-2017 **Master's Degree in Computer Science**, *NRU Higher School of Economics*, Russia

2012-2015 **Yandex School of Data Analysis, Computer Science Specialization**, *Yandex*, Russia

2011-2015 **Bachelor's Degree in Computer Science**, *Moscow Institute of Physics and Technology*, Russia

Online courses

2013-2015 **Mining Massive Datasets, Machine Learning, Discrete Optimization, Cryptography I**, *Coursera*

Industry Experience

Google DeepMind

2017-Now **Senior Software Engineer**, London, United Kingdom

Working on a platform for fast and reproducible research experiments.

- Implemented core components of XManager platform to provide fair distribution and high utilization of compute resources for DeepMind and Alphabet researchers.

Yandex

2014-2017 **Senior Software Engineer**, Moscow, Russia

Worked on distributed highly available storage and computational platform (YT).

- Scaled MapReduce scheduler component to support 100k of computing cores and 1000s of users by parallelizing resource allocation algorithm using persistent data structures.
- Enabled highly configurable resource allocation component (supports preemption, guaranteed resources, hierarchical weights) by designing and implementing novel resource fairness algorithm.

Facebook

2014 **Software Engineer Intern**, *3 months internship*, Menlo Park, California

Worked on Scuba, distributed in-memory database and real-time processing engine for interactive data analysis.

- Increased stored data retention time 10 times by implementing caching layer for SSD storage.
- Enabled user defined arithmetic expressions in query language by building expression evaluation engine.
- Supported multidimensional histograms and aggregates computation.

Teaching

Fall 2016 **AI in Video Games**, *Higher School of Economics*

Fall 2016 **Advanced C++**, *Higher School of Economics*

Spring 2016 **Teaching Assistant at "Combinatorial Optimization" course**, *Yandex School of Data Analysis*

Provided lectures and programming assignments for solving real-world NP-hard problems (TSP, Car sequencing, Warehouse location problem) using Linear Programming, Constrained Programming and Local Optimization methods.

Competitions

2017 **Top50 at ACM ICPC World Finals**

2016 **5th place at Challenge24, Top10 at Deadline24, Top100 at VKCup**

2015 **Top10 at Challenge24, Top200 at Facebook Hacker Cup**

2011-2016 **Top500 at Google Code Jam, Top500 at Distributed Code Jam 2016**