

Konstantin Salomatin

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RESEARCH INTERESTS:

I am doing research in optimization, game theory, machine learning and information retrieval. I am interested in large scale applications of optimization techniques, particularly allocation problems in online advertising and wind energy farm planning problems.

EDUCATION:

Ph.D. in Language and Information Technologies, GPA 4.0/4.0 (09/2007 – 08/2013)
Language Technologies Institute, SCS, Carnegie Mellon University, Pittsburgh, PA
Thesis: Large-scale hierarchical optimization for online advertising and wind farm planning

M.S. in Language and Information Technologies, GPA 4.0/4.0 (09/2005 – 08/2007)
Language Technologies Institute, SCS, Carnegie Mellon University, Pittsburgh, PA

M.S. in Applied Mathematics and Physics, Honors, GPA 5.0/5.0 (2003 – 2005)
Moscow Institute of Physics and Technology, Moscow, Russia
Thesis: Russian morphology and statistical language processing modules in the PolyAnalyst data-mining system

B.S. in Applied Mathematics and Physics, Honors, GPA 5.0/5.0 (1999 – 2003)
Moscow Institute of Physics and Technology, Moscow, Russia
Thesis: Regularized finite-stage conditional gradient method for convex mathematical programming problems

HONORS:

First place in the Russian National Computer-Physics Team competition (1999)
First place in the Moscow Mathematics Competition (1999)
First place in the Central-Russia Physics Competition (1998)
Second place in the Russian National Physics Competition (1998)
Third place in the Russian National Soros Physics Competition (1998)

RESEARCH EXPERIENCE:

Internship at Microsoft Research Asia, Beijing (09/2012 – 05/2013; 05/2011 – 08/2011)

- Research in sponsored search advertising. Game theory, large-scale optimization, allocation of advertisements under global constraints. Supervisor: Dr. Tie-Yan Liu.

Internship at Yahoo! Labs (Summer 2010)

- Research in display advertising sciences. Forecasting of future page visits for highly seasonal and event-driven heterogeneous traffic. Supervisor: Dr. Peiji Chen.

Research Assistant, Carnegie Mellon University (09/2007 – 07/2013)

- Research on optimization, statistical classification, game theory, probabilistic topic modeling. Advisor: Dr. Yiming Yang.

Research Assistant, Carnegie Mellon University (09/2005 – 12/2007)

- Research in artificial intelligence and machine learning. Scheduling with incomplete/uncertain information, fast probability computations. Advisor: Dr. Eugene Fink.

Research Assistant, Moscow Institute of Physics and Technology (09/2003 – 06/2005)

- Research in statistical language processing and Russian morphology.

WORK EXPERIENCE:

Data Scientist, Twitter Inc (November 2013 – now)

Data processing in ‘very influential twitterers’ team (VITs)

Market Analyst, Consul Group (Swiss Watch retailer and distributor in Russia) (February 2005 – August 2005)

Statistical analysis of Watch market in Russia

Software Engineer, SyberVision Corporation (March 2004 – December 2004)

Development of applications for visual-data representation in a network fault-management system

PUBLICATIONS:

”A Unified Optimization Framework for Auction and Guaranteed Delivery in Online Advertising” Konstantin Salomatin, Tie-Yan Liu, Yiming Yang. ACM International Conference on Information and Knowledge Management (CIKM), 2012.

”Statistical learning for file-type identification” Siddharth Gopal, Yiming Yang, Konstantin Salomatin and Jaime Carbonell. International Conference of Machine Learning Applications (ICMLA), 2011.

”Multi-field Correlated Topic Modeling” Konstantin Salomatin, Yiming Yang, Abhimanyu Lad. SIAM International Conference on Data Mining, 2009.

”Scheduling with uncertain resources: Representation of common knowledge” Eugene Fink, P. Matthew Jennings, Konstantin Salomatin, and Jaime G. Carbonell. In Proceedings of the IEEE International Conference on Systems, Man, and Cybernetics, 2009.

PATENTS:

Konstantin Salomatin, Datong Chen, Qi He, Peiji Chen. Embedding calendar knowledge in event-driven inventory forecasting. Yahoo! Inc, December 2013: US8620720 B2

PROGRAMMING LANGUAGES:

R, Java, Scala, C, C++, C#