

Oksana Trushina

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Experienced data scientist with a focus on business and a passion for Unix tools

Work experience

Nov 2018 — May 2023 IPONWEB (acquired by Criteo) – Senior Data Scientist

Improving the real-time bidder and other online advertising technologies

- Owned the SaaS-based traffic filtering system from a data science perspective. That included arranging ETL to obtain reliable and relevant data for prediction models, directing the developer team to ensure the desired dirty-to-clean traffic ratio for customers' data science pipeline under QPS constraints, and defining metrics to reflect customers' technical and business goals.
- Was responsible for anomaly filtering solution for all the company's clients.
- Conducted numerous feature engineering experiments: developed the pipelines for web scraping and analyzing mobile apps source code to prepare new features for in-app advertisement, developed the pipeline for extracting keywords from advertisement pictures and videos to enrich the conversion prediction model.
- Developed MVP (from math concept to implementation) to automate daily ad operations, proposed and implemented additional on-the-fly heuristics to achieve the customers' ROI goals.
- Suggested a new approach for delayed (and funnel) conversion prediction and experimentally proved it resulted in the objective function uplift.
- Worked on maintenance tasks: investigating and debugging advertising campaigns performance.
- Mentored junior and middle newcomers and gave lectures for project managers about data science basics and in-house data science solutions.

Dec 2017 — Oct 2018 Rambler & Co – Mathematician Developer

Devising mathematical models and implementing them in the ad tech system.

- Implemented multi-armed bandit for A/B testing.
- Developed an algorithmic bidder from math concept to prototype.
- Implemented ad hoc bidding strategies.
- Done multiple code reviews and refactorings.

Sep 2012 — Sep 2016 Moscow Institute of Physics and Technology (MIPT) – PhD student, teaching assistant

Researching alternatives to common cryptographic approach for data transmission.

- Developed an information-theoretic approach for anonymous communication.
- Defended PhD thesis ([link](#)) based on this method.

Sep 2014 — Jul 2015 Eldorado LLC – Java developer

Developing a backend part of the e-commerce system.

- Implemented the feature enabling purchasing services complement to the goods added to a cart.
- Implemented a special sorting algorithm for cart items which meets non-trivial business requirements.

Sep 2009 — May 2012 R&D Company “Information & Network Technologies” – Junior researcher

Developed and implemented the new algorithm of frequency planning for wireless MESH networks.

Dec 2011 — May 2012 STEC.COM – Network support engineer

Troubleshooting and fixing network issues.

Skills

- Computer Science & Math:
 - knowledge of algorithms and data structures
 - knowledge of probability theory, statistics, machine learning
 - grasp of cryptography, information theory
 - understanding of network and routing protocols
- Software Development:
 - knowledge of and vast practical experience in Python, Java, bash, awk, make
 - strong knowledge of SQL
 - competency with Git, Mercurial
- Tool & Utilities:
 - advanced user of Linux command line
 - experience with Google Cloud Platform
 - advanced user of document preparation system LaTeX

Education

2006 — 2016	Moscow Institute of Physics and Technology (MIPT) MS in Applied Mathematics and Physics PhD in Computer Science
2009 — 2010	Cisco Networking Academy Design, build, and manage networks, CCNA
2008 — 2009	Education Center after Kalashnikov V. V., MIPT Java SE and Java EE.

Publications & Conference Papers

Follow the [link](#) for details.

Languages

- English – upper-intermediate.
- Russian – native.