Daria Borisyak

Personal Data

Email: darya.borisyak@gmail.com

Education

September 2015 — July 2017
Master's degree, System Analysis and Control;
Moscow Institute of Physics and Technology,
department of Aerophysics and Space Research;
Federal Research Centre of Computer Science and Control;
Dissertation: 'Document classification automation for social digital library'
Scientific mentor: Vladimir Vasilyevich Ryazanov.

September 2011 — July 2015
Bachelor's degree, Applied mathematics and physics,
Moscow Institute of Physics and Technology,
department of Aerophysics and Space Research;
department of High Technologies for Security Measures
Dissertation: 'Study of the possible influence of the physical parameters of the Earth on living systems',
Scientific mentor: Gennady Maximovich Nigmetov.

Employment

September 2016 — August 2017
Junior Data Scientist,
Bookmate
Social digital library.

I took part at a distributed representation-based recommendation algorithm development. I also was working on document classification task with the main purpose to facilitate site navigation for users. The process included data collection and preparation, comparative analysis of existing algorithms (both classical Machine Learning and Deep Learning, e.g. CNN), textual feature engineering and unsupervised learning methods application on top of users' behavior information to produce labels for initially unlabeled dataset.

May 2016 — September 2016
Junior Data Analyst,
Retail Rocket
The company provides personalized recommendations for online stores.

I was responsible for development of current recommender system. It included optimization of current algorithmic base, adaptation of novel techniques and methods from the area of recommender systems. I have developed a Frequent Pattern growth based algorithm for grocery online-store to considerably boost quality of cross-sell recommendations. I also have optimized an LDA-based algorithm by applying an idea from scientific paper to find optimal number of clusters for the model.

My responsibilities also included routine reports on effectiveness of various recommendation algorithms and users' behavior.

October 2015 — May 2016
Junior researcher,
AdSniper
The company provides automatic placement of advertising in the Internet as a service.

I was responsible for research in areas of Cluster Analysis and Natural Language Processing such as topic modeling and document classification. I played the key role in document clustering system development. Optimized the parameters of Latent Dirichlet Allocation model using Kullback-Leibler divergence and Word2Vec model performance.

Applied Alternating Least Squares (implemented on the top of Theano for parallel computing) to provide fast matrix factorization to cluster users by their interests.

February 2015 — August 2015
Account Manager Assistant,
Retail Rocket
I have provided service integration assistance and technical support. Have written technical documentation (both in Russian and English).

Professional Trainings

July - August 2016
Tinkoff FinTech Summer School
Two-month courses 'Functional Programming Principles in Scala' and 'Machine Learning applications in FinTech Industry' organized by Tinkoff bank.

August 2017
Deep Bayes Summer School
A five-day summer school organized by Bayesian methods research group (Higher School of Economics, Computational Mathematics and Cybernetics Department of Moscow State University), devoted to the application of Bayesian methods to Deep Learning tasks.

Other activities

2016
CardioQvark Challenge
Took part in Machine Learning competition to classify a person as a smoker or non-smoker given their cardiogram. Developed a solution based on techniques from Signal Analysis (non-specific for cardiograms) and Machine Learning. The final solution was stacked SVM and Random Forest on Furrier coefficients of cardiograms' slices.
Result: reached the accuracy of 56% using only non-domain specific techniques.

General information

Programming languages and technologies

Basic knowledge: HTML, CSS, JavaScript, Scala, Spark, Hadoop, LaTeX, SQL, Linux, git
Advanced knowledge: Python, scikit-learn, gensim, nltk, pymorphy

Languages

Russian: mother tongue
English: Upper Intermediate
German: B1