

## Murat Apishev

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github | My page (in russian)

#### SUMMARY \_

I am an expert in data science, machine learning, natural language processing and software development. My skills include data analysis, training ML and DL models, designing and writing efficient code, team leading. Also I teach a lot and like to be a public speaker.

### **EDUCATION**.

# MOSCOW STATE UNIVERSITY (CMC) / FRC IM OF THE RUSSIAN ACADEMY OF SCIENCES

2017-2020

Ph.D in Computer Science

\*Effective Implementation of Topic Modeling Algorithms with Additive Regularization

MOSCOW STATE UNIVERSITY (CMC)

2015-2017

MASTER OF APPLIED MATHEMATICS AND COMPUTER SCIENCE

**MOSCOW STATE UNIVERSITY (CMC)** 

2011-2015

**BACHELOR OF APPLIED MATHEMATICS AND COMPUTER SCIENCE** 

# WORK EXPERIENCE AND PROJECTS \_\_\_\_\_

TALKMART42 April 2020 - Now

DATA SCIENTIST (CO-FOUNDER)

Prototype of voice control system for self-service checkout for retail company (Python / NLP)

- •English neural QA-system for specific domain for advertising agency (Python / NLP)
- •Advertisements classification system for advertising and media research company (Python / NLP)
- •Voice games for Yandex Alice and Sber Salut (Python)

### **DIGITAL DECISIONS (AITHEA)**

April 2019 - April 2020

NLP TEAM LEADER / DATA SCIENTIST (SENIOR)

- •Spell checker for government organization (C++ / Python / NLP)
- •English NER in application onboarding for B2C startup (Project managment)
- •Search and recommender system for English scientific articles (Project managment / Team leading)
- •Trend detection in Twitter and YouTube data for Instinct BBDO (Python / NLP / Team leading)
- •Collecting NLP-data for Huawei voice assistant (Python / NLP / Team leading)
- •Tickets ordering chatbot for B2C company (NLP / Team leading / Project management)

YANDEX ZEN September 2017 - April 2019

ML-ENGINEER (MIDDLE)

- System for evergreen content detection within Zen recsys (Java / Python / SQL / ML)
- •System for one-day/yellow/black content classification within Zen recsys (Java / Python / NLP)
- •Zen recsys channel catalog ranking system (Java / SQL)
- •Zen recsys fresh content usage strategies algorithms (Java / SQL)

YANDEX SEARCH April 2016 - September 2017

SOFTWARE ENGINEER (JUNIOR)

•Yandex Search antirobot development (C++)

### **COMPUTING CENTRE OF RUSSIAN ACADEMY OF SCIENCES**

July 2014 - April 2016

SOFTWARE ENGINEER

- •BigARTM open-source library for topic modeling (C++ / Python / NLP)
- •Ethnic content exploration in social networks data (Python / NLP)
- •Clustering and sentiment analysis of bank employees reviews (Python / NLP)

#### MAIN TEACHING EXPERIENCE \_

### MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY

2019-2021

**LECTURER OF PYTHON COURSE** 

## **HIGHER SCHOOL OF ECONOMICS**

2020

#### MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY / MOSCOW STATE UNIVERSITY

2017-2020

LECTURER OF NLP COURSE (EARLIER - ASSISTANT)

YANDEX SCHOOL OF DATA ANALYSIS

2016-2019

ASSISTANT IN ML COURSE

**HIGHER SCHOOL OF ECONOMICS** 

ASSISTANT IN NLP COURSE

2017-2018

## SKILLS, MODELS, APPROACHES

PROGRAMMING LANGUAGES Experienced: Python 2/3 | C++11 Familiar: Java | JavaScript | SQL

**SOFTWARE DEVELOPMENT** Algs and Data Structures | OOP Patterns | Multi-Threaded Programming | MapReduce

GENERAL ML AND DS Log/Linear Regression | kNN | RF | GB | PCA | t-SNE | K-means | GMM | DBSCAN |

SMOTE | Time-Series Exp. Smoothing | ARIMA | A/B Tests | Stat. Hypothesis Testing

NON-DEEP NLP Text Preprocessing | Regexes | TF-IDF | Word2vec | GloVe | FastText | LDA | ARTM

**DEEP NLP** FFNN | CNN | GAN | RNN (BiLSTM) | Seq-to-seq (Attention) | Transformer | BERT |

Roberta | Albert | Ernie | Distillbert | XLM | GPT-2 | XLNet | T5 | BART

**TECHNICAL SKILLS** Linux Terminal (Ubuntu) | VC (Git, SVN) | Unit Testing | CI | LaTex

**SOFT/MANAGMENT SKILLS** Teaching | Agile (Scrum, Kanban) | Waterfall | Fluent Speech (Russian)

**LANGUAGES** Russian (Native) | English (Intermediate)

# **TOOLS, LIBRARIES, FRAMEWORKS**

**SOFTWARE DEVELOPMENT** Experienced: STL | Venv | Pipenv | Docker | Redis | Flask | Google Protobuf

Familiar: Hadoop | PySpark | MPI | CUDA | Cython | Numba | Android SDK (Java) |

QT | React | GDB | CMake | MongoDB | Travis CI | AWS

GENERAL ML NumPy | Pandas | Sklearn | Matplotlib | SciPy | XGBoost | CatBoost | Vowpal Wabbit |

Statsmodels | Faiss | ScaNN | Jupyter Notebook | Colab | Yandex Toloka

NON-DEEP NLP Re | Pymorphy2/Pymystem3 | NLTK | SpaCy | FastText | Gensim | BigARTM | UDPipe

**DEEP NLP** PyTorch | Huggingface | Sentence Transformers | Haystack | DrQA | EasyNMT

**VOICE ASSISTANTS, ASR/TTS** Yandex SpeechKit | Vosk (Kaldi) | Yandex Dialogs | Google Actions | RHVoice

MANAGMENT/OTHERS Yandex Tracker | Emacs | MS Office | Google Docs | Overleaf | Beamer

### MAIN PUBLIC ACTIVITIES \_\_

- Alice Urban Skills Hackathon, 2021 (with team, 3rd place)
- · VirusHack Hackathon, 2020 (with team, 1st place)
- DataStart Conference, 2020 (two paired speeches, Instinct BBDO and Huawei)
- OpenTalks.AI Conference, 2020 (paired speech, Huawei)

# MAIN SCIENTIFIC PAPERS

- Apishev M., Vorontsov K. Learning Topic Models With Arbitrary Loss. FRUCT, 2020
- Apishev M., Koltcov S., Koltsova O., Nikolenko S., Vorontsov K. Additive Regularization for Topic Modeling in Sociological Studies of User-Generated Texts. MICAI, 2016
- Frei O., Apishev M. Parallel Non-blocking Deterministic Algorithm for Online Topic Modeling. AIST, 2016
- Vorontsov K., Frei O., Apishev. M., Romov P., Suvorova M., Yanina A. Non-Bayesian Additive Regularization for Multimodal Topic Modeling of Large Collections. CIKM Workshop, 2015