

## 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.

# **WORK EXPERIENCE AND PROJECTS**

Since May 2023

**NLP-ENGINEER (SENIOR)** 

• Research and experiments with LLM training, fine-tuning and measuring in GigaChat project

JUST AI October 2021 - April 2023

### NLP R&D TEAM LEADER

- NLP core of cloud text processing engine (Team leading / Project managment / NLP / Python)
- Project on training and distilling models for text vectorization and classification (NLP / Python)
- Project on training models for controllable text paraphrasing (NLP / Research / Python)
- Extensive research on LLM development with the publication of a review on habr.com (NLP / Research)

TALKMART42 April 2020 - October 2022

#### 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)
- Voice and visual business apps in Sber Salut (TypeScript / Python)

ALFA BANK August 2021 - October 2021

### **DATA SCIENTIST (SENIOR)**

- ML and DL models for chat-bot intent detection (Python / NLP)
- Project managment of several NLP tasks with reporting to senior officials (Team leading / Project managment)

# 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)

#### **FREELANCE**

**DATA SCIENTIST** 

- Clustering and sentiment analysis of bank employees reviews (Python / NLP)
- Retail data analysis and parsing for scientific nutritional project (Python / NLP)
- Development of recommender system for online food store (Python)

#### **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

MAIN TEACHING EXPERIENCE

Online Education Company Netology 2022

LECTURER OF NLP / DL COURSES

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY 2019-2023

**LECTURER OF PYTHON COURSE** 

HIGHER SCHOOL OF ECONOMICS 2020

LECTURER OF NLP ONLINE COURSE

MOSCOW INSTITUTE OF PHYSICS AND TECHNOLOGY / MOSCOW STATE UNIVERSITY 2017-2023

LECTURER OF NLP COURSE (EARLIER - ASSISTANT)

YANDEX SCHOOL OF DATA ANALYSIS 2016-2019

**ASSISTANT IN ML COURSE** 

HIGHER SCHOOL OF ECONOMICS 2017-2018

**ASSISTANT IN NLP COURSE** 

# SKILLS, MODELS, APPROACHES

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

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

GPT-like models | T5-like models

**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**

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

QT | React | GDB | CMake | MongoDB | S3 | Travis CI | AWS

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

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

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

**DEEP NLP** PyTorch | Huggingface | ONNX | 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 \_

- · OpenTalks.AI Conference, 2023 (single speech)
- Conversetions, 2022 (single speech)
- · 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 \_

- Evgeny O., Apishev M. Paraphrasers and Classifiers: Controllable Text Generation for Text Style Transfer. AIST, 2023
- Artemova E., Apishev M., Sarkisyan V., Aksenov S., Kirjanov D., Serikov O. Teaching a Massive Open Online Course on Natural Language Processing. NAACL Workshop, 2021
- 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