

## 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.

ED	UC	ΑΤ	<b>TO</b>	Ν
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Moscow State University (CMC) / FRC IM of the Russian Academy of Sciences	2017-2020
Ph.D in Computer Science	
<ul> <li>Effective Implementation of Topic Modeling Algorithms with Additive Regularization</li> </ul>	
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

## JUST AI

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

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

DATA SCIENTIST (LEAD)

- 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)**

#### 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 managment)

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*)

April 2020 - October 2022

October 2021 - April 2023

April 2019 - April 2020

August 2021 - October 2021

Yandex Search	April 2016 - September 2017
Software Engineer (Junior)	
<ul> <li>Yandex Search antirobot development (C++)</li> </ul>	
COMPUTING CENTRE OF RUSSIAN ACADEMY OF SCIENCES	July 2014 - April 2016
<u>SOFTWARE ENGINEER</u> <ul> <li>BigARTM - open-source library for topic modeling (C++ / Python / NLP)</li> <li>Ethnic content exploration in social networks data (Python / NLP)</li> </ul>	
FREELANCE	
<u>DATA SCIENTIST</u> <ul> <li>Clustering and sentiment analysis of bank employees reviews (<i>Python / NLP</i>)</li> <li>Retail data analysis and parsing for scientific nutritional project (<i>Python / NLP</i>)</li> <li>Development of recommender system for online food store (<i>Python</i>)</li> </ul>	
MAIN TEACHING EXPERIENCE	
ONLINE EDUCATION COMPANY NETOLOGY	2022
LECTURER OF NLP / DL COURSES	
Moscow Institute of Physics and Technology	2019-2022
Lecturer of Python Course	
HIGHER SCHOOL OF ECONOMICS	2020
LECTURER OF NLP ONLINE COURSE	
Moscow Institute of Physics and Technology / Moscow State University	2017-2022
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

<b>PROGRAMMING LANGUAGES</b>	<i>Experienced:</i> Python 2/3   C++11 <i>Familiar:</i> 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		
	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   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

SOFTWARE DEVELOPMENT	<i>Experienced:</i> STL   Pyenv & Venv   Pipenv   Docker   Redis   Flask   Google Protobuf	
	<i>Familiar:</i> 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

- 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

- 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