MAXIM ZUBKOV

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Moscow, Russia

EDUCATION

Moscow Institute of Physics and Technology *2017 - 2021*
Bachelor Overall GPA: 4.73/5.00
Department of Control and Applied Mathematics
Chair of Data Analysis, Yandex

TECHNICAL KNOWLEDGE

Programming Languages	Python, C/C++, SQL, JS, Kotlin
Frameworks	SciPy, CVXPY
	Pytorch, Pytorch-lightning, wandb, XGBoost, CatBoost, Dash, ReactJS, Django
Software & Tools	LaTeX, Git, Github Actions, AWS, Bash, Linux, MS Office, Jupiter, GoogleColab, Anaconda
Soft Skills	Advanced English, Presentation, Leadership, Teamwork, Time Management

RESEARCH EXPERIENCE

VK Lab (top 5% of applicants) October 2020 - Present
Research on technique to improve the speed of NLP models

· **Stack**: Pytorch, Python, GitLab, Docker, Bash

JetBrains ML4SE laboratory July 2020 - Present
Research on detecting clones in source code

· **Stack**: Pytorch-ligtning, Python, C++, Kotlin, GitHub, AWS, Bash
· ⚷ Implemented Code2Seq architecture on PyTorch
· ⚷ Contributed in AST paths mining tool Astminer
· ⚷ Designed and developed lib for augmentations of C/C++ code
· Conducted experiments and validated ideas

⚷ Stability of GANs April 2020 - August 2020
Research on detecting clones in source code

· **Stack**: Pytorch, Python, LaTeX
· Studied the influence of different techniques on the stability of GAN training (paper RUS)
· Participated at summer school SMILES at Skoltech **(top 10% of 2000 applicants)** and presented our work (poster)

Image inpainting October 2019 - December 2019

· **Stack**: TensorFlow, Python
· Paper review on the topic of image impainting and GAN
· Implement U-Net and train it on Arcitecture dataset

WORK EXPIRIENCE

Tinkoff July 2019 - August 2019

· **Stack**: Python, Zeppelin, SQL, Sklearn, Gensim, FastText, Jira
· Developing new recommendation system using NLP methods
· Cluster users by their material condition

PROJECTS AND COURSE WORKS

Pyhton in Yandex Data School February 2020 - June 2020

- · Python byte-code interpretator
- · Map-Reduce framework

C++ algorithms March 2019 - May 2019

- · 🎧 Clique problem

  Optimizing of NPC problem of finding Clique using Meet In The Middle and Branches and Bounds algorithms
- · 🎧 Fast Fourier Transform

  Implementation of Polynomial class, multiplication, exponentiation using Fast Fourier Transform
- · 🎧 Graph Planarity

  Check the graph planarity using Gamma Algorithm

🎧 Analyzer of users' behavior in web February 2019 - May 2019

- · Implemented Markov Chains algorithm to estimate how current users' behaviour differs from ordinary ones
- · Developed Google Chrome extension and launched a server that provide multi-user mode for our service

COMPETITIONS AND ACHIEVEMENTS

VK Hack September 2019

- · **Stack**: Python, Falsk, ReactJS, SQL
- · At the hackathon, it was proposed to implement mobile app for the Pushkin Museum with a voice assistant, the ability to listen to audio guides and navigate through museum. I performed as a leader of the team

CET-MIPT Hack September 2019

- · **Stack**: Python, Dash, HTML, CSS, JS
- · At the hackathon, the task was to find oil for a given set of logs (time series), and then chose the best strategy for its extraction. I performed as a leader of the team

RELEVANT COURSES

Theoretical Courses	Programming and CS Courses
Calculus, Complex Theory and Lebesgue Measure	Introduction to Machine Learning (Coursera)
Linear Algebra and Abstract Algebra	Operating Systems
Ordinary and Partial Differential Equations	Object-Oriented Programming in C++
Functional analysis	Huawei Computer Vision Course
General and Theoretical Physics	Algorithms, Data Structures and Computation Models
Probability (Coursera) and Statistics	Python (Coursera)
Convex Analysis and Optimization Theory	DeepLearning Course dlcourse.ai
	DL in NLP, ABBYY