MAXIM ZUBKOV

zubkov.md@phystech.edu +7(967)-120-61-12
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, JavaSricpt, Kotlin
Frameworks	Numpy, Matplotlib, Pandas, SkLearn, CVXPY NLTK, Gensim, FastText, PyTorch, pytorch-lightning, wandb XGBoost, CatBoost, Dash, ReactJS Django
Software & Tools	LaTeX, Git, Github Actions, AWS, Bash, Linux, MS Office, Jupiter, Zeppelin, Postgres, MongoDB, GoogleColab, Anaconda
Soft Skills	Advanced English, Presentation, Leadership, Teamwork, Time Management

RESEARCH EXPERIENCE

JetBrains ML4SE laboratory July 2020 - Present

Research on detecting clones in source code

- 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-August 2020

- Studied the influence of different techniques on the stability of GAN training (paper RUS)
- Participated at (summer school SMILES at Skoltech) and presented our work (poster)

Image Imapainting October-December 2019

- 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

- Developing new recommendation system using NLP methods
- Cluster users by their material condition

PROJECTS AND COURSE WORKS

Shell-like extensions September 2018 - October 2018

- ls, cp command implementation; Piping the result of one process to another; Posix and sys5 semaphores

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

C++ algorithms March-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

Superconducting Quantum Interference Device (SQUID) December 2019 - January 2020

- Course project on quantum effects in superconductor causing magnetic flux quantization and applications of this effect

COMPETITIONS AND ACHIEVEMENTS

VK Hack September 2019

- 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

- 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
Calculus, Complex Theory and Lebesgue Measure
Linear Algebra and Abstract Algebra
Ordinary and Partial Differential Equations
Functional analysis
General and Theoretical Physics
Probability (Coursera) and Statistics
Convex Analysis and Optimization Theory

Programming and CS Courses
Introduction to Machine Learning (Coursera)
Operating Systems
Object-Oriented Programming in C++
Huawei Computer Vision Course
Algorithms, Data Structures and Computation Models
Python Language (Coursera)
DeepLearning Course dlcourse.ai
DL in NLP, ABBYY
Full-stack Web Development with React (Coursera)
CS224W (currently passing)