Aleksei Kalinov

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EXPERIENCE

Software Engineering Intern, Google *Remote, June – August 2020*
Designed and launched a pipeline to perform a continuous static code analysis of 2 Million Play Store apps that helps to drive non-SDK interface restrictions. Participated in Android's Inclusive Language Fix It
Java, C++, MapReduce `https://android-review.googlesource.com/q/author:akalinov`

Software Engineering Intern, Google *USA, July – October 2019*
Increased relevance of recommendations in the internal marketing tool by inferring missing metadata of hundreds of documents with modern NLP DL approaches.
Go, Python, TensorFlow, SQL, App Engine

Software Engineering Intern, Google *USA, June – September 2018*
Designed and implemented a library to transform 3D data into format suitable for existing Street View Deep Learning models. Increased throughput of a distributed 3D rendering pipeline.
C++, OpenGL

SWE Intern in R&D deparment, CGF Studio *Russia, December 2017 – May 2018*
Implemented and compared several physically based skin deformation simulation models for 3D characters.
Houdini, VEX, Python `https://tinyurl.com/muscle-deformation-drive`

Software Engineering Intern, Google *USA, July – September 2017*
Developed a text classification model for the YouTube content rating system. Launched the model as a real-time production microservice.
Python, Tensorflow, C++

Software Engineering Intern, Google *Switzerland, July – September 2016*
Designed experiments and implemented YouTube-scale distributed pipelines to quantify importance of graph features for YouTube language classifiers.
C++, MapReduce, TensorFlow, SQL

EDUCATION

Skolkovo Institute of Science and Technology *2019 – 2021, GPA:* 5.0/5.0
MSc in Mathematics and Computer Science, Data-Intensive Mathematical Modelling track
Current research topic: Efficient distributed numerical modelling of higher-dimensional caustics in Compton scattering on Zhores supercomputing cluster. [*Python, CUDA, MPI, Numpy/Scipy*]

National Research University Higher School of Economics *2015 – 2019, GPA:* 9.08/10.0
BSc in Applied Mathematics and Informatics with Honors, Machine Learning track, Minor in Physics
Thesis: CNN-based Post-Processing of Synthetic Objects For Data Augmentation [*Python, TensorFlow*]

PROJECTS

Machine Learning-Assisted PAPR Reduction in Massive MIMO *2020*
Computed optimal hyperparameter function and its memory-efficient representation to achieve state-of-the-art results for PAPR reduction in massive multiple-input-multiple-output setting.
Publication under review. [*MATLAB, Python, Numpy/Scipy*]

Stabilization of oscillatory solutions in Smoluchowski equations *2020*
Implementation and analysis of preconditioning and parameter dampening schemes to achieve convergence to steady state solutions in aggregation-fragmentation equations with Brownian kernel.
`https://github.com/mousebaiker/SmolOsc` [*Python, CUDA*]

WESPE paper reproduction *2019*
Independent reproduction of WESPE algorithm to enhance with GAN style-transfer.
`https://bitbucket.org/mousebaiker/wespe` [*Python, PyTorch*]

AWARDS AND ACHEIVEMENTS

Segalovich Stipend Yandex and HSE Faculty of Computer Science joint stipend. 2018, 2019.

Kaggle Freesound General-Purpose Audio Tagging Challenge Top 20%

CS department award the best freshmen project, 2016.