Michael Solotky

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EDUCATION

GitHub: MichaelSolotky

in LinkedIn: michael-solotky

• Master of Science in Applied Mathematics and Informatics, GPA 3.90 / 4.0 Higher School of Economics: Faculty of Computer Science
Joint programme with Yandex School of Data Science

Sep 2019 - Jun 2021

Bachelor of Science in Applied Mathematics and Computer Science, GPA 3.89 / 4.0
 Lomonosov Moscow State University
 Faculty of Computational Mathematics and Cybernetics

Sep 2015 – Jun 2019

EXPERIENCE

• Software Development Engineer at Amazon
Alexa TextToSpeech C C++ Python Bash Perl CI/CD MXNet

Aug 2021 - Present · 11mo

- Reduced latency of a Deep Learning model for homograph disambiguation by 56%
- Urgently fixing bugs with wrong pronunciation helping to deliver projects on time
- Extending functionality of an internal library for integration testing in Speech Synthesis **making it simple** to execute various new testing scenarios
- Research Science Intern at Yandex [PyTorch][NumPy][Pyplot][IMTEX] Sep $2020 Jun\ 2021 \cdot 9mo$
 - o Comparing existing methods for uncertainty estimation on large-scale tasks
 - Finding theoretical foundations for various methods of uncertainty estimation in Deep Learning
 - Results are described in the Master's thesis
- Machine Learning Engineer Intern at Yandex

 $\textit{Jun 2019 - Sep 2019} \cdot \textit{3mo}$

 $\textbf{Machine Translation department} \ \big[\ \text{TensorFlow} \ \big] \ \big[\ \text{MapReduce} \ \big] \ \big[\ \text{SciPy} \ \big] \ \big[\ \text{Pyplot} \]$

- Conducted experiments to improve quality and diversity of translations
- o Analyzed baseline approaches and found some basic mistakes that they make
- Increased quality and diversity by internal company's metrics and by commonly used machine translation metrics: 10% of max-BLEU growth and about 60% of self-BLEU diversity growth
- Implemented several models in company's internal machine learning library
- Software Engineer Intern at Yandex

Jun 2018 - Oct 2018 · 3mo

Voice Technology department C++ Python MapReduce Protobuf

- Implemented several methods of probability smoothing in language models for Automatic Speech Recognition
- Conducted experiments on quality measurement to find the best model among all
- Implemented an optimal algorithm for training n-gram language models in C++ using MapReduce which reduced training time by 3 times and slightly increased quality

PROJECTS

• BigARTM C++ Boost Protobuf Travis CI AppVeyor

Jan 2017 - Jun 2018

Open Source library for topic modelling

Developed a tool for parallel calculation of pairwise word statistics (code sample, documentation)

TECHNICAL SKILLS

- Languages used at work: C++, Python, C, Bash, Perl
- Basic knowledge: SQL, Assembly language
- Technologies/Libraries: MapReduce, Protobuf, C++ Boost, Make, NumPy/SciPy, Sklearn, Pandas, CVXPY
- Deep Learning frameworks: PyTorch, TensorFlow, Keras, MXNet
- Tools: Git, Subversion, UNIX/Linux, Continuous Deployment, GDB, Docker, Travis CI, AppVeyor, IATEX

I hereby give consent for my personal data included in the application to be processed for the purposes of the recruitment process in accordance with Art. 6 paragraph 1 letter a of the Regulation of the European Parliament and of the Council (EU) 2016/679 of 27 April 2016 on the protection of natural persons with regard to the processing of personal data and on the free movement of such data, and repealing Directive 95/46/EC (General Data Protection Regulation).