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Michael Solotky

• Gdańsk, Poland

EDUCATION

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

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

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] [LATEX] Sep 2020 Jun 2021 · 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

 Machine Translation department TensorFlow MapReduce SciPy Pyplot

 Jun 2019 Sep 2019 · 3mo

 MapReduce SciPy Pyplot
 - Conducted experiments to improve quality and diversity of translations
 - 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
- Voice Technology department C++ Python MapReduce Protobuf
 - Implemented several methods of probability smoothing in language models for Automatic Speech Recognition
 - o 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

 $\bullet \ \ \mathbf{BigARTM} \ \boxed{\mathrm{C}{++}} \ \boxed{\mathrm{Boost}} \ \boxed{\mathrm{Protobuf}} \ \boxed{\mathrm{Travis} \ \mathrm{CI}} \ \boxed{\mathrm{AppVeyor}}$

Jan 2017 - Jun 2018

Jun 2018 - Oct 2018 · 3mo

Open Source library for topic modelling

• Software Engineer Intern at Yandex

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

TECHNICAL SKILLS

- Languages: C++, Python, C, Bash, Perl
- Technologies/Libraries: MapReduce, Protobuf, C++ Boost, Make, NumPy/SciPy, Sklearn, Pandas, CVXPY
- Deep Learning frameworks: PyTorch, TensorFlow, Keras, MXNet
- Tools: Git, UNIX/Linux, GDB, Docker, LATEX, Continuous Deployment, Travis CI, AppVeyor

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).