LinkedIn: michael-solotky
jaworomichal128@gmail.com

Michael Solotky

Gdańsk, Poland

Education

- **Master of Science** in **Applied Mathematics and Informatics**, GPA 3.90 / 4.0 *Sep 2019 – Jun 2021*
  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 *Sep 2015 – Jun 2019*
  Lomonosov Moscow State University
  Faculty of Computational Mathematics and Cybernetics

Experience

- **Software Development Engineer at Amazon** *Aug 2021 – Present · 11mo*
  Alexa TextToSpeech C | C++ | Python | Bash | Perl | CI/CD | MXNet
  - **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*
  - 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** *Jun 2019 – Sep 2019 · 3mo*
  Machine Translation department TensorFlow | 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
- **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**: 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