# Michał Słodki

• Warsaw, Poland

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## SKILLS

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

#### EXPERIENCE

• Software Engineer at Samsung R&D Center Visual Display group C++ C GDB Valgrin Feb 2023 – present

- ToDo: fill in later ToDo: fill in later
- Software Development Engineer at Amazon

 $Aug~2021-Aug~2022\cdot~1yr$ 

Alexa TextToSpeech C++ C Python CI/CD

- Worked on various projects in text normalization for Speech Synthesis in various languages
- Reduced latency of a model for homograph disambiguation by 56%
- Urgently fixing bugs with wrong pronunciation helping to deliver projects on time
- Extended 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 Python PyTorch NumPy 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

Jun 2019 - Sep 2019 · 3mo

Machine Translation department Python TensorFlow MapReduce SciPy

- $\circ\,$  Conducted experiments to improve the 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
- 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
- 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**

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

Jan 2017 - Jun 2018

## Open Source library for topic modeling

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

#### 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