RESEARCH INTERESTS

Generative modelling, fast kernel methods, tensor networks, natural language processing

**PUBLICATIONS** 

**M. Munkhoeva**, Y. Kapushev, E. Burnaev and I. Oseledets, *Quadrature-based Features for Kernel Approximation* (Spotlight)

Neural Information Processing Systems (NeurIPS 2018) arxiv.org/abs/1802.03832, code: github.com/maremun/quffka

A.Tsitsulin\*, M. Munkhoeva\*, D. Mottin, P. Karras, A. Bronstein, I. Oseledets, E. Müller

The Shape of Data: Intrinsic Distance for Data Distributions International Conference on Learning Representations (ICLR 2020)

openreview, code: github.com/imd-iclr/imd A.Tsitsulin\*, M. Munkhoeva\*, B.Perrozi

Just SLaQ When You Approximate: Accurate Spectral Distances for Web-Scale Graphs

International World Wide Web Conference (WWW 2020)

arxiv.org/abs/2003.01282

A.Tsitsulin\*, M. Munkhoeva\*, D. Mottin, P. Karras, I. Oseledets and E. Müller

FREDE: Linear-Space Anytime Graph Embeddings

arxiv.org/abs/2006.04746

EDUCATION Skolkovo Institute of Science and Technology (Skoltech)

Ph.D. student, Computer Science, Advisor: Ivan Oseledets

Skolkovo Institute of Science and Technology (Skoltech)

M.Sc. in Computational Mathematics, June 2016

Thesis: Using deep neural networks for machine translation with non-parallel corpora

Massachusetts Institute of Technology (MIT), Visiting student, Fall 2015 National Research University Higher School of Economics (NRU HSE)

Bachelor Degree, June 2014, GPA 4.9/5, magna cum laude (top 3%)

SUMMER SCHOOLS Machine Learning Summer School, July 2020, Tübingen, Germany

Machine Learning Summer School, July 2019, London, UK

Summer School on Deep Learning and Bayesian Methods, August 2017, Moscow, Russia

EXPERIENCE Research Assistant, Skoltech, Sep 2016 – present

Internship, Google X, Jul 2019 – Jan 2020

Applied tensor networks in Transformer for  $\sim 2x$  inference speed-up and model compression. blog.tensorflow.org/2020/02/speeding-up-neural-networks-using-tensornetwork-in-keras.html

TEACHING Teaching EXPERIENCE Instructor

**AWARDS** 

Teaching AssistantNumerical Linear AlgebraFall 2018, 2017, 2016InstructorReproducible Research with DockerJan 2018, 2019

**Instructor** Mathematical and technical writing in English Jan 2017

RELEVANT SKILLS Programming Python, JAX, PyTorch, Tensorflow

Machine Learning Deep Learning, Generative models (flows, GANs, VAEs), Kernels

Miscellaneous LaTEX, Git, Docker, Linux, cluster administration, SQL

OTHER Server administration, I support and maintain our laboratory's computational resources.

**NLA bot**, developed a Telegram bot for home assignment submission, testing and auto-grading.

github.com/maremun/nlabot

Spring 2019 The Ilya Segalovich Award, a scholarship for young researchers from Yandex

Spring 2019 MLSS in London 2019 Travel Grant

Fall 2018 NeurIPS Travel Grant

Spring 2014 NRU HSE Scholarship (for best academic performance)

REFERENCES Ivan Oseledets, Full Professor,

Skolkovo Institute of Science and Technology, i.oseledets@skoltech.ru

Andrzej Cichocki, Professor,

Skolkovo Institute of Science and Technology, a.cichocki@skoltech.ru