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\*, D. Mottin, P. Karras, I. Oseledets, L. Kamma and E. Müller

Anytime Optimal Graph Embeddings (In submission)

EDUCATION Skolkovo Institute of Science and Technology (Skoltech)

Ph.D. student, Computer Science (expected October 2020)

Advisor: Ivan Oseledets

Thesis (working title): Distribution Learning

Skolkovo Institute of Science and Technology (Skoltech)

M.Sc. in Computational Mathematics, June 2016

Advisor: Ivan Oseledets

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 Summer School on Deep Learning and Bayesian Methods

26-30 August 2017, Moscow, Russia

Machine Learning Summer School, 2019

15-26 July 2019, London, UK

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.

TEACHING Teaching Assistant Numerical Linear Algebra Fall 2018, 2017, 2016
EXPERIENCE Instructor Reproducible Research with Docker Jan 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 for young researchers, a scholarship from Yandex

Spring 2019 MLSS in London 2019 Travel Grant

AWARDS Fall 2018 NeurIPS Travel Grant

Spring 2014 NRU HSE Scholarship (for best academic performance)