

Experience

- Jul. **Senior Deep Learning R&D Engineer**, *Intel Corporation*, Nizhny Novgorod, Russia.
- 2019–current
- Development of state-of-the-art neural net compression algorithms from prototype to productization (with focus on quantization and pruning methods).
 - Developer of Neural Network Compression Framework in PyTorch ([github link](#))
 - Developer of Intel OpenVINO network optimization tool for efficient low-bitwidth post-training quantization of neural nets.
- 2017–2019 **Software Engineer**, *Intel Corporation*, Nizhny Novgorod, Russia.
- R&D in optimization/fitting of parametric models for molecular dynamics (MD) simulations
 - Usage of machine learning models to drive MD modeling
- 2016 **Research Intern**, *Laval University*, Quebec City, Canada.
- Analysis of neuronal calcium imaging data, parametric model optimization (signal processing in Python)
- 2015–2017 **Software Engineering Intern**, *Intel Corporation*, Nizhny Novgorod, Russia.
- Research and development of atomistic simulation tools (molecular dynamics) for industrial process modeling

Education

- 2017–2020 **Doctorate**, *École normale supérieure*, Paris, France.
Applied machine learning to neural activity decoding
- 2014–2016 **MSc in Physics**, *Lobachevsky State University of Nizhni Novgorod*.
Advanced School of General and Applied Physics; honors
- 2010–2014 **BSc in Physics**, *Lobachevsky State University of Nizhni Novgorod*.
Advanced School of General and Applied Physics; honors

Tech stack

Python, C++ (including C++17), PyTorch, Tensorflow, Bash scripting, SQL, git, sklearn, numpy, scipy, pandas.

Publications

- [1] Alexander Kozlov, **Ivan Lazarevich**, Vasily Shamporov, Nikolay Lyalyushkin, and Yury Gorbachev. Neural network compression framework for fast model inference, *arXiv preprint arXiv:2002.08679*, 2020.
- [2] J. Lussange, **I. Lazarevich**, S. Bourgeois-Gironde, S. Palminteri, and B. Gutkin. Stock market microstructure inference via multi-agent reinforcement learning, *arXiv preprint arXiv:1909.07748*, 2019.
- [3] **Ivan Lazarevich**, Ilya Prokin, and Boris Gutkin. Neural activity classification with machine learning models trained on interspike interval series data, *arXiv preprint arXiv:1810.03855*, 2019.