Ivan Lazarevich

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Experienced deep learning research and development engineer. Skilled in deep learning, classical machine learning and Python. Looking for an applied deep learning researcher / deep learning engineer position.

Skills and expertise

Python (5 years), PyTorch (3 years), TensorFlow (1 year), OpenVINO, Linux, git, CI/CD (Jenkins), numpy, scipy, sklearn, pandas, jupyter.

Experience

2021– **Deep Learning Engineer**, *Deeplite*.
Computer vision for the edge

2019–2021 **Senior Deep Learning R&D Engineer**, *Intel Corporation*.
- 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/TensorFlow (github link).
- Developer of Intel OpenVINO network optimization tool for efficient low-bitwidth post-training quantization and pruning of neural nets (link).

2017–2019 **Software Engineer**, *Intel Corporation*.
- R&D in optimization of parametric models for molecular dynamics (MD) simulations
- Usage of machine learning/deep learning approaches to drive MD modeling

2016 **Research Intern**, *Laval University*.
- Analysis of calcium imaging data, parametric model optimization, signal processing

2015–2017 **Software Engineering Intern**, *Intel Corporation*.
- Research and development of atomistic simulation tools (molecular dynamics) for industrial process modeling

Selected papers

[1] Alexander Kozlov, Ivan Lazarevich, Vasily Shamporov, Nikolay Lyalyushkin, and Yury Gorbachev. Neural network compression framework for fast model inference. In *Intelligent Computing*, pages 213–232. Springer, 2021.

[2] Johann Lussange, **Lazarevich, Ivan**, Sacha Bourgeois-Gironde, Stefano Palminteri, and Boris Gutkin. Modelling stock markets by multi-agent reinforcement learning. *Computational Economics*, 57(1):113–147, 2021.

[3] **Lazarevich, Ivan**, Alexander Kozlov, and Nikita Malinin. Post-training deep neural network pruning via layer-wise calibration. *ICCV 2021 Low-Power Computer Vision Workshop*, 2021.

[4] **Lazarevich, Ivan**, Ilya Prokin, Boris Gutkin, and Victor Kazantsev. Neural activity classification with machine learning models trained on interspike interval time-series data. *bioRxiv*, 2021.

Education

2017–2021 **Doctorate**, *École normale supérieure*, Paris, France.
Researching machine learning approaches for the diagnosis of early-stage neurodegenerative diseases.

2014–2016 **MSc in Physics**, *Lobachevsky State University of Nizhni Novgorod*.
Advanced School of General and Applied Physics; honors