Denis Gudovskiy
https://github.com/gudovskiy
Contacts: gudovskiy@gmail.com or 917-826-1404

JOB OBJECTIVE

A challenging R&D position in machine learning including model development and quick prototyping

EXPERIENCE

Senior Deep Learning Researcher, Panasonic AI Lab, Mountain View, CA
November 2016 to present

- Conducted research related to perception of autonomous vehicles including development of HW-efficient DNN models, semi/self-supervised learning and dataset optimization methods
- Most of the projects can be found in publications [1-7] and GitHub page

Senior Wireless Engineer, Intel Corp, Santa Clara, CA
January 2016 to November 2016

- R&D of 5G modem baseband for ASIC/FPGA realization
- Simulated MIMO receivers: MMSE/ML demodulators, noise-whitening, LLR calculation etc.

Senior Systems Engineer, Olympus Corp R&D, San Diego, CA
October 2013 to December 2015

- Designed a complete modem including floating/fixed point models in MATLAB/C++
- Developed a system model of ultra low power RFIC chip

Senior Algorithm Developer, Huawei Technologies, Moscow, Russia
June 2010 to September 2013

- Developed proprietary algorithms: linear/nonlinear filtration, adaptive filters, ANNs
- Simulated and implemented fixed-point algorithms on Xilinx Virtex FPGAs

EDUCATION

MS in Computer Engineering, 2008, University of Texas at Austin
BS in Telecommunications, 2006, Kazan State Technical University, Russia

SKILLS

ML frameworks: PyTorch, Caffe, Tensorflow
Programming languages: Python/Numpy/Scipy, MATLAB, R, C/C++, Verilog
Math background: machine/deep learning, linear algebra, random processes, convex optimization

SELECTED PUBLICATIONS

1. AutoDO: Robust AutoAugment for Biased Data with Label Noise via Scalable Probabilistic Implicit Differentiation, CVPR2021
2. Deep Active Learning for Biased Datasets via Fisher Kernel Self-Supervision, CVPR2020
3. Smart Home Appliances: Chat with your Fridge, NIPS2019 demo
4. Explanation-Based Attention for Semi-Supervised Deep Active Learning, LLD workshop at ICLR2019 (spotlight)
5. Explain to Fix: A Framework to Interpret and Correct DNN Object Detector Predictions, SysML workshop at NIPS2018
6. DNN Feature Map Compression using Learned Representation over GF(2), CEFRL workshop at ECCV2018 (best paper)
7. ShiftCNN: Generalized Low-Precision Architecture for Inference of Convolutional Neural Networks, arXiv2017