

Dmitriy Serdyuk

University of Montreal
Montreal Institute for Learning Algorithms (MILA)

Email: serdyuk.dmitriy@gmail.com

Education

- [University of Montreal](#), Department of Computer Science and Operations Research, Montreal Institute for Learning Algorithms (MILA)
Ph.D. student 2014 – present
 - Advisor: [Yoshua Bengio](#)
 - Area of study: Machine learning, deep learning
- [Saint-Petersburg Academic University](#), Information technologies department
M.Sc. student 2011 – 2013, graduated with distinction
 - Advisor: [Sergey Nikolenko](#)
 - Area of study: Machine learning
 - GPA: 4.00
- [Saint-Petersburg State Politechnical University](#), Solid state physics department
B.Sc. in Technical Physics, 2007 – 2011
 - Advisor: Alexander G. Banshikov
 - Area of study: Epitaxial dielectrics growth
 - GPA: 3.49

Additional Education

- [Academy of Modern Software Engineering](#), 2009 – 2011
- [Computer Science Student Club at PDMI, St. Petersburg](#), Active member since 2010

Experience

- Epitaxial dielectrics growth (working with Banshikov A.G.), 2008 – 2011
- Development of open source service for electronic book searching; creating online utility for converting text, html and doc files into ePub format ([eBookSearch](#)), 2010 – 2011
- Research in Bayesian rating systems with Sergey Nikolenko, 2011 – 2012
- Intern in EMC corporation (machine learning, statistical analysis and data science), 2012 – 2013
- Data scientist in Exigen Services, 2013 – 2014
- Internship at IBM Watson. Work on invariant representations using adversarial training for noisy speech recognition. Fall 2016
- Internship at Facebook. Work on spoken language understanding. Fall 2017

Fields of Research Interest

Machine learning, deep learning, neural networks, sequence models, speech recognition, end-to-end learning, probabilistic graphical models.

Publications

- [MaD TwinNet: Masker-Denoiser Architecture with Twin Networks for Monaural Sound Source Separation](#); K. Drossos, S.I. Mimilakis, D. Serdyuk, G. Schuller, T. Virtanen, and Y. Bengio; 2017
- [Twin Networks: Matching the Future for Sequence Generation](#); Dmitriy Serdyuk, Nan Rosemary Ke, Alessandro Sordoni, Adam Trischler, Chris Pal, and Yoshua Bengio; ICLR 2018
- [Towards End-to-End Spoken Language Understanding](#); Dmitriy Serdyuk, Yongqiang Wang, Christian Fuegen, Anuj Kumar, Baiyang Liu, Yoshua Bengio; ICASSP 2018
- [Invariant Representations for Noisy Speech Recognition](#); Dmitriy Serdyuk, Kartik Audhkhasi, Philémon Brakel, Bhuvana Ramabhadran, Samuel Thomas, and Yoshua Bengio; NIPS workshop on End-to-end Speech Recognition 2016
- [Theano: A Python framework for fast computation of mathematical expressions](#); The Theano Development Team; 2016
- [Task Loss Estimation for Sequence Prediction](#); Dzmitry Bahdanau, Dmitriy Serdyuk, Philemon Brakel, Nan Rosemary Ke, Jan Chorowski, Aaron Courville, Yoshua Bengio; ICLR Workshop 2016
- [End-to-end attention-based large vocabulary speech recognition](#); Dzmitry Bahdanau, Jan Chorowski, Dmitriy Serdyuk, Philemon Brakel, Yoshua Bengio; ICASSP 2016
- [Blocks and fuel: Frameworks for deep learning](#); Bart van Merriënboer, Dzmitry Bahdanau, Vincent Dumoulin, Dmitriy Serdyuk, David Warde-Farley, Jan Chorowski, Yoshua Bengio; 2015
- [Attention-based models for speech recognition](#); Jan K Chorowski, Dzmitry Bahdanau, Dmitriy Serdyuk, Kyunghyun Cho, Yoshua Bengio; NIPS 2015
- [Bayesian Rating Systems with Additional Information on Tournament Results](#); Sergey Nikolenko, Alexander Sirotkin, Dmitriy Serdyuk; 2011

Conference and Seminar Presentations

- [An Improvement of the Bayesian Rating System TrueSkill\(TM\) and its Fast Parallel Implementation](#); MLSS Kyoto, August 30, 2012
- [Fundamentals of Optimization Problems](#); Sarntal Ferien-Akademie 2012
- [Graphical models: Factor graphs](#), December 8, 2011

Filed patents

- Method for prediction of the duration of Garbage Collection for Backup Storage systems. (with Mark Chamness) 2012 – 2013, during internship in EMC corporation.

Skills summary

- One year experience in working in team
- Experience in data aggregating and statistical analysis
- Machine learning algorithms, Theano, SQL, Greenplum, PL/R, MapReduce, Hadoop, SAP HANA
- Programming Languages:
 - Python
 - C++
 - R
 - Haskell
- Languages: Russian(native), English(advanced), French(elementary)
- Certificate: Advanced English course at the St. Petersburg Academic University in 2013

Last updated: February 23, 2018