

Iryna Korshunova

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Kaggle kaggle.com/golondrina

Education

- Oct, 2017- **Visiting PhD student** - Gatsby Computational Neuroscience Unit, UCL, London, UK
Supervisor: Arthur Gretton
- Oct, 2015- **PhD student in Machine Learning** - Ghent University, Belgium
- 2013-2015 MSc in Statistical Data Analysis - Ghent University, Belgium
Magna cum laude
- 2012-2015 MSc in Applied Mathematics - National Technical University of Ukraine “Kiev Polytechnic Institute”
Diploma with honours
- 2008-2012 BSc in Applied Mathematics - National Technical University of Ukraine “Kiev Polytechnic Institute”
Diploma with honours

Extra Courses

- 2019 Machine Learning Summer School @ University College London (as tutorial helper)
- 2018 Gaussian Process Summer School @ University of Sheffield
- 2018 Microsoft Research AI Summer School @ MSR Cambridge (received a poster prize)
- 2015 Deep Learning Summer School @ University of Montreal
- 2015 Machine Learning Summer School @ Max Planck Institute, Tübingen (received a travel stipend)

Work experience

- Spring, 2019 Twitter, London, UK
Research Intern (supervised by Lucas Theis)
Researched logistic LDA – the first discriminative neural topic model (NeurIPS 2019)
- Summer, 2017 Twitter, London, UK
Research Intern (supervised by Lucas Theis)
Pruned neural networks, contributed to pytorch
- Summer, 2016 Twitter / Magic Pony Technology, London, UK
Research Intern (supervised by Lucas Theis and Ferenc Huszár)
Developed a real-time face swapping method based on neural style transfer (ICCV 2017)
- Summer, 2013 Grammarly, Kiev, Ukraine
Research Engineer Intern
Worked on the evaluation of topic models and their integration into a contextual spell checker

Awards

- 2017 Data Science Bowl 2017 (Kaggle)
9th place, \$25K prize, team Deep Breath
Lung cancer prediction from chest CT scans
- 2016 Second Annual Data Science Bowl (Kaggle)
2nd place, \$50K prize, team kunsthart
Cardiac volumes estimation based on 4D MRI-data of a heart
- 2015 National Data Science Bowl (Kaggle)
1st place, \$100K prize, team Deep Sea
Classification of plankton images
- 2014 American Epilepsy Society Seizure Prediction Challenge (Kaggle)
10th place
Epileptic seizure prediction based on iEEG signals

Publications

Iryna Korshunova, Hanchen Xiong, Mateusz Fedoryszak, Lucas Theis. Discriminative topic modeling with logistic LDA. *Neural Information Processing Systems (NeurIPS)*, 2019; [arXiv:1909.01436](#)

Iryna Korshunova, Yarin Gal, Joni Dambre, Arthur Gretton. Conditional BRUNO: a deep recurrent process for exchangeable labelled data. *European Symposium on Artificial Neural Networks (ESANN)*, 2019; *NeurIPS workshop on Bayesian Deep Learning*, 2018.

Iryna Korshunova, Jonas Degraeve, Ferenc Huszár, Yarin Gal, Arthur Gretton, Joni Dambre. BRUNO: a deep recurrent model for exchangeable data. *Neural Information Processing Systems (NeurIPS)*, 2018; [arXiv:1802.07535](#) [code]

Lucas Theis, **Iryna Korshunova**, Alykhan Tejani, Ferenc Huszár. Faster gaze prediction with dense networks and Fisher pruning. *Preprint* [arXiv:1801.05787](#), 2018.

Iryna Korshunova, Wenzhe Shi, Joni Dambre, Lucas Theis. Fast face-swap using convolutional neural networks. *International Conference on Computer Vision (ICCV)*, 2017; [arXiv:1611.09577](#)

Iryna Korshunova, Pieter-Jan Kindermans, Jonas Degraeve, Thibault Verhoeven, Benjamin Brinkmann, Joni Dambre. Towards improved design and evaluation of epileptic seizure predictors. *IEEE Transactions on Biomedical Engineering*, 2017; DOI: [10.1109/TBME.2017.2700086](#)

Benjamin H. Brinkmann, Joost Wagenaar,..., **Iryna Korshunova** et al. Crowdsourcing reproducible seizure forecasting in human and canine epilepsy. *Brain*, 2016, 139 (6) 1713-1722; DOI: [10.1093/brain/aww045](#)

Bob L. Sturm, João F. Santos, Oded Ben-Tal, **Iryna Korshunova**. Music transcription modelling and composition using deep learning. *1st Conference on Computer Simulation of Musical Creativity*; [arXiv:1604.08723](#) [code]

Bob L. Sturm, João F. Santos, **Iryna Korshunova**. Folk music style modelling by recurrent neural networks with long short term memory units. *International Society for Music Information Retrieval conference*, 2015 [pdf, code]

Iryna Korshunova Epileptic seizure prediction using deep learning. *Master dissertation*, 2015[[pdf](#)]

Iryna Korshunova Classification of functional data with free knots splines. *System Research and Information Technologies*, 2014 [[abstract](#)]

Other

Frameworks: tensorflow, pytorch, theano, lasagne

Languages: fluent in Ukrainian, Russian, Dutch and English

Hobbies: playing cello, ballroom and latin dancing, fabric painting