

Iryna Korshunova

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		Kaggle	kaggle.com/golondrina

Education

- 2015-2020 PhD in Machine Learning - Ghent University, Belgium
Supervisors: Joni Dambre and Arthur Gretton (UCL)
Title: “BRUNO: exchangeable deep learning models of predictive distributions”
- 2017-2020 Visiting PhD student - Gatsby Computational Neuroscience Unit, UCL, UK
- 2013-2015 MSc in Statistical Data Analysis - Ghent University, Belgium
Magna cum laude
- 2012-2015 MSc in Applied Mathematics - National Technical University of Ukraine “Kyiv Polytechnic Institute”
Diploma with honours
- 2008-2012 BSc in Applied Mathematics - National Technical University of Ukraine “Kyiv Polytechnic Institute”
Diploma with honours

Extra Courses

- 2019 Machine Learning Summer School, London (as a tutorial helper)
- 2018 Gaussian Process Summer School; Microsoft Research AI Summer School (received a poster prize)
- 2015 Deep Learning Summer School @ University of Montreal; Machine Learning Summer School, Tübingen

Work experience

- June-Oct, 2021 Facebook AI Research, London, UK
Research Intern (supervised by Edward Grefenstette and Tim Rocktäschel)
Alternative scoring functions for prioritized level replay in procedurally-generated RL environments
- Jan-May, 2021 DeepMind, London, UK
Research Scientist Intern (supervised by Sven Gowal)
Adversarial robustness of information bottleneck models
- Spring, 2019 Twitter, London, UK
Research Intern (supervised by Lucas Theis)
Logistic LDA – the first discriminative neural topic model (NeurIPS 2019)
- Summer, 2017 Twitter, London, UK
Research Intern (supervised by Lucas Theis)
Pruning of neural networks used for fast image cropping
- Summer, 2016 Twitter / Magic Pony Technology, London, UK
Research Intern (supervised by Lucas Theis and Ferenc Huszár)
Real-time face swapping method based on neural style transfer (ICCV 2017)
- Summer, 2013 Grammarly, Kyiv, Ukraine
Research Engineer Intern
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, Minqi Jiang, Jack Parker-Holder, Tim Rocktäschel, Edward Grefenstette. “Return Dispersion as an Estimator of Learning Potential for Prioritized Level Replay.” *NeurIPS Deep RL Workshop, 2021*

Iryna Korshunova, David Stutz, Alex Alemi, Olivia Wiles, Sven Gowal. “A Closer Look at the Adversarial Robustness of Information Bottleneck Models.” *ICML Adversarial Machine Learning Workshop, 2021*

Iryna Korshunova, Jonas Degraeve, Joni Dambre, Arthur Gretton, Ferenc Huszár. “Exchangeable models in meta reinforcement learning” *4th Lifelong Learning Workshop at ICML, 2020*

Iryna Korshunova, Hanchen Xiong, Mateusz Fedoryszak, Lucas Theis. “Discriminative topic modeling with logistic LDA” *Neural Information Processing Systems (NeurIPS), 2019*

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*

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*

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*

Benjamin H. Brinkmann, Joost Wagenaar, ..., **Iryna Korshunova** et al. “Crowdsourcing reproducible seizure forecasting in human and canine epilepsy” *Brain, 2016, 139 (6) 1713-1722*

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*

Bob L. Sturm, João F. Santos, **Iryna Korshunova**. “Folk music style modelling by recurrent neural networks with long short term memory units” *ISMIR, late-breaking demo session, 2015*

Iryna Korshunova “Epileptic seizure prediction using deep learning” *Master’s dissertation, 2015*