Iryna Korshunova

Location	Ghent, Belgium	**Website**	http://irakorshunova.github.io/
Email	irene.korshunova@gmail.com	**Github**	https://github.com/IraKorshunova
		Kaggle	https://www.kaggle.com/golondrina

Education

2015–2019 PhD in Machine Learning - Reservoir Lab, Ghent University, Belgium

2013-2015 MSc in Statistical Data Analysis - Ghent University, Belgium

Graduated magna cum laude
Thesis: "Epileptic seizure prediction using deep learning" [pdf]

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
Thesis: 'Classification of functional data using free knots splines'

Extra Courses

July 2015 Machine Learning Summer School -Max Planck Institute for Intelligent Systems, Tübingen, Germany

August 2015 Deep Learning Summer School - Université de Montréal, Montreal, Canada

Research assistantships

Summer, 2016 Twitter / Magic Pony Technology, London, UK
Research Intern

Supervisors: Lucas Theis and Ferenc Huszár
Developed a real-time face swapping method based on neural style transfer

Summer, 2013 Grammarly Inc., Kiev, Ukraine
Research Engineer Intern

Created a multipurpose Wikipedia-based corpus; trained a topic model and implemented an algorithm for its evaluation, integrated this model into contextual spell checker; compared the performance of several named-entity recognizers.

Technologies: Java SE, Mallet, Apache OpenNLP.

Projects

Second Annual Data Science Bowl (team kunsthart 2nd/192, Kaggle) [code, blog post]

National Data Science Bowl (team Deep Sea 1st/1049, Kaggle) [blog post]

American Epilepsy Society Seizure Prediction Challenge (10th/504, Kaggle) [code, blog post]

DecMeg2014 - Decoding the Human Brain (19th/ 267, Kaggle)

UPenn and Mayo Clinic's Seizure Detection Challenge (56th/200, Kaggle) [code]

Application for melody generation and its harmonization [code in Java]

Numerically stable implementation of Viterbi and Forward-Backward algorithms in context of Hidden Markov Models [code in C++]

Publications

Iryna Korshunova, Wenzhe Shi, Joni Dambre, Lucas Theis Fast Face-swap Using Convolutional Neural Networks // arXiv preprint arXiv:1611.09577

Benjamin H. Brinkmann, Joost Wagenaar, ... , Iryna Korshunova et al. Crowdsourcing Reproducible Seizure Forecasting in Human and Canine Epilepsy // Brain Jun 2016, 139 (6) 1713-1722; DOI: http://dx.doi.org/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, June 2016 [arxiv, code]

Bob L. Sturm, João F. Santos, and Iryna Korshunova Folk Music Style Modelling by Recurrent Neural Networks with Long Short Term Memory Units // International Society for Music Information Retrieval (ISMIR) conference, October 2015. (late-breaking demo) [pdf, code]

Iryna Korshunova, Lionel Pigou, Pieter Buteneers, Sander Dieleman, Joni Dambre Epileptic seizure prediction using convolutional neural networks // 31 st International Epilepsy Congress, September 2015 (accepted for a best poster presentation) [poster]

Iryna Korshunova Classification of functional data with free knots splines // System Research and Information Technologies. — 2014. — № 2. — P. 115–124 [abstract]

Honors and Awards

2015-2019 Ghent University (Special Research Fund) Doctoral scholarship

2015 Queen Mary University of London PhD studentship (declined)

2015 Machine Learning Summer School travel stipend

2015 7th International Workshop on Seizure Prediction travel stipend

2013-2014 EUROEAST Erasmus Mundus exchange scholarship