

Iryna Korshunova

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|-----------------|--|----------------|---|
| 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

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** EURO EAST Erasmus Mundus exchange scholarship

Research assistantships

- Summer, 2016** [Twitter / Magic Pony Technology, London, UK](#)
Research Intern
Real-time face swapping using convolutional neural networks

Summer, [Grammarly Inc., Kiev, Ukraine](#)
2013 *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

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](#)]

Teaching experience

Fall, Machine Learning E061330, Ghent University
2015 *Teaching assistant*

Other

Languages

Ukrainian, Russian - native

English - full professional proficiency

Dutch - elementary proficiency

Interests

Playing cello (currently at Ghent University Symphony Orchestra)

Hiking