Kristina Gulordava

Department of Translation and Language Sciences University Pompeu Fabra Roc Boronat, 138, 08018 Barcelona kgulordava@gmail.com

Postdoc Researcher, University Pompeu Fabra, Barcelona, Spain

Feb 2018 – present

ERC project: A distributional Model of Reference to Entities (PI: Gemma Boleda)

Research topics: modelling language acquisition using multi-modal neural networks; fast mapping and unsupervised learning; computational syntax

EDUCATION

PhD in Linguistics, University of Geneva, Switzerland

June 2018

Thesis: Word order variation and dependency length minimisation: A computational cross-linguistic approach (supervisor: Paola Merlo)

MSc in Informatics, University of Lugano, Switzerland

July 2010

Concentration in Intelligent Systems

Magna cum laude 8.94/10

Thesis: Empirical evaluation of credal classifiers (supervisor: Marco Zaffalon)

 BSc in Applied Mathematics and Informatics

Sept 2008

State Polytechnical University of St. Petersburg, Russia

4.7/5

EXPERIENCE

Research

Research intern Sept 2017 – Dec 2017

Facebook AI Research, Paris, France (advisor: Marco Baroni)

Visiting student Sept 2016 – Feb 2017

ILCC, University of Edinburgh, UK (advisor: Frank Keller)

Visiting student Sept 2014 – Jan 2015

INRIA Alpage, University Paris Diderot 7, France (advisor: Benoit Crabbé)

Research assistant Oct 2012 – Sept 2013

University of Geneva, Department of Linguistics, Geneva, Switzerland SNSF project: The Grammatical Basis of Language Frequencies (PI: Paola Merlo)

Research intern

June 2011 – Sept 2011

Institute of Cognitive Sciences and Technology of CNR, Trento, Italy Project: Using discourse relations to enrich FrameNet (advisor: Laure Vieu)

Research intern July 2010 – Sept 2010

Fondazione Bruno Kessler, Human Language Technologies Group, Trento, Italy

Project: Improving word sense disambiguation for Italian (advisor: Claudio Giuliani)

Teaching

Teaching assistant Fall 2015, Spring 2016, 2017

Programming and Algorithms (Bachelor of Arts program), Department of Linguistics, University of Geneva

Teaching assistant Fall 2013, Spring 2014, 2015

Empirical methods in language processing (Master of Science program), Department of Informatics, University of Geneva

Teaching assistant Spring 2009

Calculus I (Bachelor of Science program), Faculty of Informatics, University of Lugano

SOFTWARE DEVELOPMENT

Java developer Feb 2008 – Sept 2008

SwiftTeams, St.Petersburg, Russia

Java developer intern

June 2007 – Aug 2007

OpenWay Group Company, Russian IT department, St.Petersburg, Russia

PROFESSIONAL ACTIVITIES

Reviewer for NAACL 2019, ACL 2018, Linguistic Issues in Language Technology Journal, ESSLLI

TECHNICAL SKILLS

Programming languages:

• Python, R (current); Java, C (previous experience)

Data analysis and Machine Learning including:

• Neural Networks (PyTorch), Mixed-Effect statistical models (R)

Natural Language Processing techniques, tools and resources:

- Dependency treebanks (Universal Dependencies) and dependency parsing
- Stanford CoreNLP, Moses

Languages

Russian (native), English, Italian, French (fluent), Spanish (passive)

Publications

Journals & Proceedings

Computational Quantitative Syntax: The Case of Universal 18. Accepted for LSRL 47 upcoming volume Kristina Gulordava, Paola Merlo

How to represent a word and predict it, too: Improving tied architectures for language modelling. EMNLP 2018 (short) pdf

Kristina Gulordava, Laura Aina, Gemma Boleda

Colorless Green Recurrent Networks Dream Hierarchically. NAACL 2018 pdf

Kristina Gulordava, Piotr Bojanowski, Edouard Grave, Tal Linzen, Marco Baroni

Multi-lingual Dependency Parsing Evaluation: a Large-scale Analysis of Word Order Properties using Artificial Data. TACL 2016 pdf

Kristina Gulordava, Paola Merlo

Discontinuous Verb Phrases in Parsing and Machine Translation of English and German. LREC 2016 pdf Sharid Loáiciga, Kristina Gulordava

Dependency length minimisation effects in short spans: a large-scale analysis of adjective placement in complex noun phrases. ACL 2015 (short) pdf

Kristina Gulordava, Paola Merlo, Benoit Crabbé

Structural and lexical factors in adjective placement in complex noun phrases across Romance languages. CONLL 2015 pdf

Kristina Gulordava, Paola Merlo

Diachronic Trends in Word Order Freedom and Dependency Length in Dependency-Annotated Corpora of Latin and Ancient Greek. International Conference on Dependency Linguistics 2015 pdf Kristina Gulordava, Paola Merlo

A distributional similarity approach to the detection of semantic change in the Google Books Ngram corpus. Proceedings of the GEMS 2011 Workshop pdf

Kristina Gulordava, Marco Baroni

Peer-reviewed abstracts

Do RNN language models induce referential information? An analysis of article prediction. Learning Language in Humans and Machines 2018

Kristina Gulordava, Gemma Boleda

 $Incremental\ Generative\ Model\ of\ Sentence\ Linearization\ and\ Word\ Order\ Variation.\ CMCL\ Workshop\ at\ EACL\ 2017$

Kristina Gulordava, Frank Keller

 $Lexico-semantic\ factors\ in\ the\ variation\ of\ adjective\ placement\ in\ complex\ noun\ phrases\ in\ Italian.\ DSALT\ Workshop\ 2016$

Kristina Gulordava

A large-scale corpus-based study of NP-internal word order variation for several languages. 8th Days of Swiss Linguistics 2014

Kristina Gulordava, Paola Merlo

Talks & Presentations

Barcelona Deep Learning Symposium Colorless green recurrent networks dream hierarchically	Dec 2018
CoML group seminar, LSCP, École Normale Supérieure, Paris Modelling grounded word acquisition using neural networks: First explorations into fast mappin learning	Nov 2018 and slow
URLing research seminar, University Pompeu Fabra Computational models of word order variation and dependency length minimisation effects	May 2017
ProbModels group seminar, University of Edinburgh Incremental Generative Model of Sentence Linearization and Word Order Variation	Jan 2017
ProbModels group seminar, University of Edinburgh Quantifying and analysing word order variability and dependency length for multi-lingual parsing	Oct 2016 evaluation
LangLunch, University of Edinburgh Variation of adjective placement in complex noun phrases in Italian	Oct 2016
Linguistic Department seminar, University of Geneva Quantitative analysis of Dependency Length Minimisation effects based on multilingual treebanks	Nov 2015
Research seminar UFR de Linguistique, University Paris Diderot 7 Quantitative patterns of NP-internal word order variation: a cross-linguistic corpus-based approach	Jan 2015

Grants & Awards

Swiss National Science Foundation Doc. Mobility grant

Credal classifiers and their empirical evaluation

FBK research center (Human Language Technologies group), Trento, Italy

2016

Sept 2010

Labex EFL (Paris, France) Mobility grant	2014
Swiss National Science Foundation grant to participate in the LSA Summer Institute	2013
Department of Linguistics scholarship for outstanding students, University of Geneva	2011, 2012
'Universita a colori' fellowship for international graduate students, University of Trento	2010
Fellowship for outstanding Master students, University of Lugano	2008
2nd diploma, City Olympiad in Physics, St-Petersburg	2002
3rd diploma, City Olympiad in Mathematics, St-Petersburg	2001

Additional experience

CUSO Schools in Statistics, Les Diablerets, Switzerland	Feb 2015, Sept 2015
Instructional Skills Workshop, University of Geneva, Switzerland	Sept 2014
CRUS Winter Schools in Language and Cognition, Macolin, Switzerland	$\mathrm{Dec}\ 2013,\mathrm{Dec}\ 2015$
LSA Summer Institute, University of Michigan, Ann Arbor (MI), USA	June 2013 – July 2013
Postgraduate Certificate in Linguistics, University of Geneva, Switzerland	Sept 2011 – Oct 2012
Master in Human Language Technologies, University of Trento, Italy	Sept 2010 – July 2011
PDMI Computer Science Club Mathematical Institute of Russian Academy of Science, St. Petersburg, Russia.	Sept 2007 – July 2008