

MILOŠ STANOJEVIĆ

POSTDOC AT THE UNIVERSITY OF EDINBURGH

RESEARCH INTERESTS

- Probabilistic Models of Natural Language
- Structured Prediction
- Deep Learning
- Incremental Syntactic Parsing of Natural Language
- Mildly Context-Sensitive grammar formalisms (CCG, MCFG, Minimalist Grammars)
- Unsupervised Grammar Induction
- Machine Translation
- Formal Linguistic Universals

EDUCATION

Feb 2013 -
Dec 2017

Ph.D at the University of Amsterdam, ILLC

Thesis topic: [Permutation Forests for Modeling Word Order in Machine Translation](#)

Supervisors: Prof. Dr. Khalil Sima'an and Dr. Wilker F. Aziz

Summary: In the thesis I propose representation of MT reordering patterns that is based on recursive factorization of permutations. This recursive process forms a tree-like description of relations between paired sentences. In the first part of the thesis I give an unsupervised generative model that learns these hierarchical representations and show how they improve MT. In the second part I show how these factorizations could be used to also improve MT evaluation.

Oct 2010 -
Feb 2013

European Masters in Language and Communication Technology

Charles University in Prague (2nd year) and
University of Malta (1st year)

Thesis topic : [Large-Scale Discriminative Training for Machine Translation into Morphologically-Rich Languages](#)

Supervisor : Dr. Ondřej Bojar

Oct 2006 -
Aug 2010

B.Sc. in Electrical Engineering

University of Niš, Serbia

Thesis topic : [Optimization of Scala programs](#)

WORK EXPERIENCE

- Nov 2017 - **PostDoc at University of Edinburgh**
with Prof. Mark Steedman
Institute for Logic, Language and Computation
- July - Oct 2017 **Internship at Nuance**
with Prof. Edward Stabler
Natural Language and AI group, Sunnyvale, California
- Feb 2013 – July 2017 **Researcher at University of Amsterdam**
with Prof. Khalil Sima'an
Institute for Logic, Language and Computation

PUBLICATIONS

- IWPT 2020**
under submission [Span-Based LCFRS-2 Parsing](#)
The 16th International Conference on Parsing Technologies
Miloš Stanojević and Mark Steedman
- CL journal 2020**
second round of reviewing [Formal Basis of a Language Universal](#)
Computational Linguistics journal
Miloš Stanojević and Mark Steedman
- ACL 2020** [Max-Margin Incremental CCG Parsing](#)
Annual Meeting of the Association for Computational Linguistics
Miloš Stanojević and Mark Steedman
- CUNY 2020** [Predictive Processing of Coordination in CCG](#)
CUNY Human Sentence Processing Conference
Miloš Stanojević, John Hale and Mark Steedman
- ACL 2019** [Wide-Coverage Neural A* Parsing for Minimalist Grammars](#)
Annual Meeting of the Association for Computational Linguistics
John Torr, **Miloš Stanojević**, Mark Steedman and Shay Cohen
- FG 2019** [On the Computational Complexity of Head Movement and Affix Hopping](#)
Conference on Formal Grammar
Miloš Stanojević
- NAACL 2019** [CCG Parsing Algorithm with Incremental Tree Rotation](#)
Conference of the North American Chapter of the Association for Computational Linguistics
Miloš Stanojević and Mark Steedman

- CMCL 2019** [The active-filler strategy in a move-eager left-corner Minimalist Grammar parser](#)
Workshop on Cognitive Modeling and Computational Linguistics
 Tim Hunter, **Miloš Stanojević** and Edward Stabler
- CogACLL 2018** [A Sound and Complete Left-Corner Parsing for Minimalist Grammars](#)
Workshop on Cognitive Aspects of Computational Language Learning and Processing
Miloš Stanojević and Edward Stabler
- PROPOR 2018** [SICK-BR: a Portuguese corpus for inference](#)
International Conference on Computational Processing of the Portuguese Language
 Livy Real, Ana Rodrigues, Andressa Vieira e Silva, Beatriz Albiero, Bruna Thalenberg, Bruno Guide, Cindy Silva, Guilherme de Oliveira Lima, Igor CS Câmara, **Miloš Stanojević**, Rodrigo Souza, Valeria de Paiva
- PhD Thesis 2017** [Permutation Forests for Modeling Word Order in Machine Translation](#)
University of Amsterdam 2017
Miloš Stanojević
- EMNLP 2017** [Neural Discontinuous Constituency Parsing](#)
Conference on Empirical Methods in Natural Language Processing
Miloš Stanojević and Raquel G. Alhama
- ACL 2017 short paper** [Alternative Objective Functions for Training MT Evaluation Metrics](#)
Annual Meeting of the Association for Computational Linguistics
Miloš Stanojević and Khalil Sima'an
- LACL 2016** [Minimalist Grammar Transition-Based Parsing](#)
Logical Aspects of Computational Linguistics
Miloš Stanojević
- COLING 2016** [Hierarchical Permutation Complexity for Word Order Evaluation](#)
International Conference on Computational Linguistics
Miloš Stanojević and Khalil Sima'an
- COLING 2016** [Universal Reordering via Linguistic Typology](#)
International Conference on Computational Linguistics
 Joachim Daiber, **Miloš Stanojević** and Khalil Sima'an
- WMT 2016** [Examining the Relationship between Preordering and Word Order Freedom in Machine Translation](#)
Conference on Machine Translation
 Joachim Daiber, **Miloš Stanojević**, Wilker Aziz and Khalil Sima'an

- WMT 2016 [Results of the WMT16 Metrics Shared Task](#)
Conference on Machine Translation
Ondřej Bojar, Yvette Graham, Amir Kamran and **Miloš Stanojević**
- WMT 2016 [Results of the WMT16 Tuning Shared Task](#)
Conference on Machine Translation
Bushra Jawaid, Amir Kamran, **Miloš Stanojević** and Ondřej Bojar
- EMNLP 2015 [Reordering Grammar Induction](#)
Conference on Empirical Methods in Natural Language Processing
Miloš Stanojević and Khalil Sima'an
- PBML 2015 [Evaluating MT systems with BEER](#)
The Prague Bulletin of Mathematical Linguistics
Miloš Stanojević and Khalil Sima'an
- WMT 2015 [BEER 1.1: ILLC UvA submission to metrics and tuning task](#)
Workshop on Machine Translation
Miloš Stanojević and Khalil Sima'an
- WMT 2015 [Results of the WMT15 Metrics Shared Task](#)
Workshop on Machine Translation
Miloš Stanojević, Amir Kamran, Philipp Koehn and Ondřej Bojar
- WMT 2015 [Results of the WMT15 Tuning Shared Task](#)
Workshop on Machine Translation
Miloš Stanojević, Amir Kamran and Ondřej Bojar
- SSST 2014 [Evaluating Word Order Recursively over Permutation-Forests](#)
Workshop on Syntax, Semantics and Structure in Statistical Translation
Miloš Stanojević and Khalil Sima'an
- WMT 2014 [BEER: BEtter Evaluation as Ranking](#)
Workshop on Machine Translation
Miloš Stanojević and Khalil Sima'an
- EMNLP 2014
short paper [Fitting Sentence Level Translation Evaluation with Many Dense Features](#)
Conference on Empirical Methods in Natural Language Processing
Miloš Stanojević and Khalil Sima'an
- WMT 2012 [Selecting data for English-to-Czech machine translation](#)
Workshop on Machine Translation
Aleš Tamchyna, Petra Galuščáková, Amir Kamran, **Miloš Stanojević**,
Ondřej Bojar

CONTRIBUTIONS TO COMMUNITY

Reviewing for conferences: ACL, NAACL, EMNLP, CoNLL, AAAI

Reviewing for journals: NLE, LREC, MT, LM

Organizing shared tasks: WMT Metrics and WMT Tuning tasks in 2015 and 2016

INVITED TALKS

Nuance NL & AI lab
Sunnyvale, 2017

Learning Reordering Grammars

Rich Parsing Workshop
Amsterdam, 2016

Minimalist Grammar Transition-Based Parsing

MT Marathon
Prague, 2015

Discriminative Training for Statistical Machine Translation

SCHOLARSHIPS

2010 - 2012

Erasmus Mundus scholarship

2004 - 2010

Scholarship from the Ministry of Science and Technological Development of Serbia

awarded for taking part in international mathematical competitions

2002 - 2004

Scholarship from the Ministry of Education of Serbia

awarded for taking part in international mathematical competition

TEACHING

2012/2013 summer

TA for **Statistical Structure in NLP**

2013/2014 winter

TA for **Elements of Language Processing**

2014/2015 summer

Organizing project course on **Monte Carlo Inference for PCFG**

2015/2016 summer

TA for **Natural Language Processing 2**

2016/2017 summer

TA for **Natural Language Processing 2**