# MILOŠ STANOJEVIĆ

SENIOR RESEARCH SCIENTIST AT GOOGLE DEEPMIND

## RESEARCH INTERESTS

- Structured Prediction
- Deep Learning
- Formal Linguistics
- Incremental Syntactic Parsing
- Unsupervised Learning
- Machine Translation

## WORK EXPERIENCE

Nov 2021 – now	Senior Research Scientist  Google DeepMind  Language Team, London, UK
Nov 2017 – Oct 2021	Research Associate University of Edinburgh with Prof. Mark Steedman School of Informatics, Edinburgh, UK
July 2017 – Oct 2017	Internship Nuance Communications (now part of Microsoft) with Prof. Edward Stabler Natural Language and AI group, Sunnyvale, US
Education	
2013 – 2017	Ph.D. Natural Language Processing University of Amsterdam, Netherlands topic: Permutation Forests for Modeling Word Order in MT supervised by Prof. Khalil Sima'an and Dr. Wilker Aziz
2011 – 2013	Mgr. Mathematical Linguistics Charles University in Prague, Czech Republic
2010 – 2011	M.Sc. Human Language Science and Technology University of Malta, Malta
2006 – 2010	B.Sc. Electrical Engineering University of Niš, Serbia

EMNLP 2021 A Root of a Problem: Optimizing Single-Root Dependency Parsing

Conference on Empirical Methods in Natural Language Processing

Miloš Stanojević and Shay Cohen

CL journal 2021 Formal Basis of a Language Universal

Computational Linguistics Journal Miloš Stanojević and Mark Steedman

IWCS 2021 Computing All Quantifier Scopes with CCG

International Conference on Computational Semantics

Miloš Stanojević and Mark Steedman

CMCL 2021 Modeling incremental language comprehension in the brain with

**Combinatory Categorial Grammar** 

Workshop on Cognitive Modeling and Computational Linguistics

Miloš Stanojević, Shohini Bhattasali, Donald Dunagan, Luca Campanelli,

Mark Steedman, Jonathan Brennan, John Hale

CASE 2021 <u>Modality and Negation in Event Extraction</u>

Workshop on Challenges and Applications of Automated Extraction of

Socio-political Events from Text

Sander Bijl de Vroe, Liane Guillou, Miloš Stanojević, Nick McKenna and

Mark Steedman

ACL 2020 Max-Margin Incremental CCG Parsing

Annual Meeting of the Association for Computational Linguistics

Miloš Stanojević and Mark Steedman

IWPT 2020 Span-Based LCFRS-2 Parsing

The 16th International Conference on Parsing Technologies

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 <u>CCG Parsing Algorithm with Incremental Tree Rotation</u>

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 <u>Neural Discontinuous Constituency Parsing</u>

Conference on Empirical Methods in Natural Language Processing

Miloš Stanojević and Raquel G. Alhama

**ACL 2017** Alternative Objective Functions for Training MT Evaluation Metrics

**short paper** Annual Meeting of the Association for Computational Linguistics

Miloš Stanojević and Khalil Sima'an

LACL 2016 <u>Minimalist Grammar Transition-Based Parsing</u>

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 <u>Evaluating MT systems with BEER</u>

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 <u>BEER: BEtter Evaluation as Ranking</u>

Workshop on Machine Translation Miloš Stanojević and Khalil Sima'an

EMNLP 2014 <u>Fitting Sentence Level Translation Evaluation with Many Dense</u>

short paper 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: CL, NLE, LREC, MT, LM

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

## (Co-)Supervision

2021 Seth Aycock

University of Edinburgh Target-side CCG Supertag Prediction Improves Machine

MSc thesis Translation

2019 Chiehmin Wei – accepted for PhD studies at Cornell

University of Edinburgh Zero-Shot and Universal Parsing with Multilingual

undergraduate project Contextualized Embeddings

2018 – 2019 John Torr – accepted at Apple Research, Cambridge

University of Edinburgh Wide-Coverage Statistical Parsing with Minimalist Grammars

PhD thesis

#### **TEACHING**

2012/2013 summer TA Statistical Structure in NLP

University of Amsterdam

2013/2014 winter TA Elements of Language Processing

University of Amsterdam

2014/2015 summer TA project course on **Monte Carlo Inference for PCFG** 

University of Amsterdam

2015/2016 summer TA Natural Language Processing 2 University of Amsterdam

2016/2017 summer TA Natural Language Processing 2

University of Amsterdam

## INVITED TALKS

TIVITED TILENS	
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