

ARTUR KULMIZEV

Engelska parken, Thunbergsv. 3 H, Box 635 ◊ 751 26 Uppsala, Sweden
(+46) (0)761-366-814 ◊ artur.kulmizev@lingfil.uu.se

EDUCATION

- Uppsala University; Sweden** *2019-23*
PhD in Computational Linguistics
Project: interpretability in neural language models and parsers
Supervisors: Joakim Nivre and Anders Søgaard
- University of the Basque Country; Spain** *2017-18*
MSc in Language and Communication Technology
Year two of EM-LCT program.
- University of Groningen; Netherlands** *2016-17*
MA in Language and Communication Technology
Year one of EM-LCT program.
- University of Massachusetts-Amherst; USA** *2008-12*
BA in English Language and Literature
Cum Laude
Certificate in Technical Writing and Professional Communication
Minor in Spanish
Minor in Information Technology

TEACHING

Courses:

- Natural Language Processing*, MA in Language Technology, Uppsala University *2019-20*
- Course for first-year MA students in fundamental NLP concepts: language modeling, part-of-speech tagging, dependency/constituency parsing, semantic role labeling. Co-taught with 1-2 instructors.
 - Administered lab sessions and gave lectures in flipped classroom format.
 - Designed and graded assignments and final projects.
- Advanced Programming*, MA in Language Technology, Uppsala University *2019*
- Course for first-year MA students in data structures and algorithms.
 - Designed and administered *Practical Programming for Language Technologists Module*, consisting of 3 lectures and 3 labs. Contents include web scraping, data visualization, and modular programming.

Master's Thesis Supervision:

- Ivan Kiseliou; topic: *Better cooperation through communication in multi-agent reinforcement learning*; defended June 2020.
- Robin Hruska, topic: *Neural Achitectures for Emergent Language in Multi-Agent Environments*; ongoing.
- Ziyang Luo, topic: *Positional Embeddings and Artefacts in Masked Language Models*; ongoing.
- Xi Yan, topic: *Incorporating biological evidence in language models to find novel knowledge*; ongoing.

HONORS AND SCHOLARSHIPS

GUF GRANT

2017

Awarded to outstanding Masters students at the University of Groningen.

EM-LCT Consortium Scholarship

2016

Awarded to motivated students enrolled in the EM-LCT program.

Dean's List

2008-12

Awarded to Bachelor's students who maintain at least a 3.5 GPA per semester.

John and Abigail Adams Scholarship

2008-12

Awarded to in-state Massachusetts students who maintain at least a 3.5 per year.

RESEARCH INTERESTS

- Computational and cognitive models of natural language processing.
- Language modeling and syntactic parsing.
- Interpretability methods for neural NLP models.
- Dependency grammar and Universal Dependencies.
- Multilingual and cross-lingual NLP models and methods.
- Information theoretic and efficiency-based models of syntax.

PUBLICATIONS

Main Conference Proceedings:

Artur Kulmizev, Vinit Ravishankar, Mostafa Abdou, Joakim Nivre. *Do Neural Language Models Show Preferences for Syntactic Formalisms?*. Proceedings of the 58th Annual Meeting of the Association for Computational Linguistics (ACL). 2020.

Artur Kulmizev, Miryam de Lhoneux, Johannes Gontrum, Elena Fano, Joakim Nivre. *Deep Contextualized Word Embeddings in Transition-Based and Graph-Based Dependency Parsing—A Tale of Two Parsers Revisited*. Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP). 2019.

Mostafa Abdou, Artur Kulmizev, Felix Hill, Daniel M. Low, Anders Søgaard. *Higher-order comparisons of sentence encoder representations*. Proceedings of the 2019 Conference on Empirical Methods in Natural Language Processing and the 9th International Joint Conference on Natural Language Processing (EMNLP-IJCNLP). 2019.

Mostafa Abdou, Artur Kulmizev, Vinit Ravishankar, Lasha Abzianidze, Johan Bos. *What can we learn from Semantic Tagging?*. Proceedings of the 2018 Conference on Empirical Methods in Natural Language Processing (EMNLP). 2018.

Mostafa Abdou, Artur Kulmizev, Vinit Ravishankar. *MGAD: Multilingual Generation of Analogy Datasets*. Proceedings of the Eleventh International Conference on Language Resources and Evaluation (LREC). 2018.

Shared Task and Workshop Submissions:

Daniel Hershcovich, Miryam de Lhoneux, Artur Kulmizev, Elham Pejhan, Joakim Nivre. *Kpsala: Transition-Based Graph Parsing via Efficient Training and Effective Encoding*. Proceedings of the 16th International Conference on Parsing Technologies and the IWPT 2020 Shared Task on Parsing into Enhanced Universal Dependencies. 2020.

Mostafa Abdou, Artur Kulmizev, Joan Gins i Ametll. *AffectThor at SemEval-2018 Task 1: A cross-linguistic approach to sentiment intensity quantification in tweets*. Proceedings of The 12th International Workshop on Semantic Evaluation (SemEval). 2018.

Artur Kulmizev, Mostafa Abdou, Vinit Ravishankar, Malvina Nissim. *Discriminator at SemEval-2018 Task 10: Minimally Supervised Discrimination*. Proceedings of The 12th International Workshop on Semantic Evaluation (SemEval). 2018.

Artur Kulmizev, Bo Blankers, Johannes Bjerva, Malvina Nissim, Gertjan van Noord, Barbara Plank, Martijn Wieling. *The Power of Character N-grams in Native Language Identification*. Proceedings of the 12th Workshop on Innovative Use of NLP for Building Educational Applications (BEA). 2018.

ACADEMIC ACTIVITIES

Oral Presentation, ACL 2020.	2019
Participated in <i>IWPT 2020 Shared Task</i> .	2020
Invited talk at NLPL Winter School.	Skeikampen, NO — 2020
Oral Presentation.	Hong Kong — 2019
Poster Presentation.	Hong Kong — 2019
Attended 1st EurNLP summit.	London, UK — 2019
Attended LxMLS Summer School.	Lisbon, PT — 2019
Attended 3rd Google NLP summit.	Zurich, CH — 2019
Attended NLPL Winter School.	Skeikampen, NO — 2019
Poster Presentations, EMNLP 2018.	Brussels, BE — 2018
Poster Presentation, TABUDAG 2018.	Groningen, NL — 2018
Poster Presentation, LREC 2018.	Miyazaki, JP — 2018
Participated in <i>SemEval-2018 Task 1: Affect in Tweets</i> . Winning Group.	2018
Participated in <i>SemEval-2018 Task 10: Capturing Discriminative Attributes</i> .	2018
Participated in <i>2017 Shared Task on Native Language Identification</i> . Winning Group.	2017
Attended ESSLI 2017.	Toulouse, FR — 2017
Attended LOT Summer School.	Leiden, NL — 2017

WORK EXPERIENCE

University of Massachusetts, Amherst	2012-2016
<i>Learning Management System Administrator</i>	<i>Amherst, Massachusetts, USA</i>

- Front-end administration for Blackboard Learn and various building blocks.
- Management of institution-wide transition from self-hosted environment to managed hosting by Blackboard.
- Technical project management and logistical planning for online teaching and learning environments.
- Testing and implementation of service packs, cumulative patches, building blocks and integrations of other applications and services.

RELEVANT SKILLS

Programming Languages
Machine Learning Toolkits
Other

Python, R, Java
Tensorflow, PyTorch, Keras, allennlp, Huggingface, scikit-learn
numpy; scipy; pandas; NLTK; gensim
technical writing and documentation; git; LINUX/UNIX;
web design (Bootstrap, Jekyll); data visualization
(ggplot2, matplotlib, seaborn); L^AT_EX

LANGUAGES

English
Russian
Spanish
Dutch
Basque
Swedish

Native-level
First language
Written & Oral Proficiency
Written & Oral Proficiency (B1)
Basic (A1)
Basic