Tomasz Korbak

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INTERESTS

Natural language processing • Deep learning • Probabilistic graphical models • Cognitive science

SKILLS

Python (SciPy ecosystem & web stack) • PyTorch • Keras • Tensorflow • SpaCy • C++ • Java • git • Docker • GNU/Linux • slurm • LaTeX

SUMMER SCHOOLS

- **Computational Psychiatry Summer School** , ETH Zurich, 2017
- **Bayesian Methods in Deep Learning** , Moscow, 2018
- **School of Pioneers** (tech entrepreneurship workshops by Cambridge University Enterprise), Cambridge, UK, 2018

PAPERS

- Developmentally motivated emergence of compositional communication via template transfer. NeurIPS 2019 workshop Emergent Communication: Towards Natural Language.
- Exploiting Unsupervised Pretraining and Automated Feature Engineering for Low-resource Hate Speech Detection in Polish
- Fine-tuning Tree-LSTM for phrase-level sentiment classification on a Polish dependency treebank

INDUSTRY EXPERIENCE

SIGMOIDAL | Machine Learning Engineer
June 2018 - ongoing | Warsaw, Poland
I worked on several NLP projects for clients in finance and education, also managing engineering teams as a technical leader. Solutions I helped to design, implement and deploy included multi-lingual document classification and clustering, document ranking, person disambiguation, name parsing, session-based query reformulation and regression on tabular and text data.

SAMSUNG R&D INSTITUTE POLAND | Junior NLP Engineer
April 2017 – December 2017 | Warsaw, Poland
I was responsible for prototyping deep learning-based solutions, error analysis of production machine learning systems and collaborating on project/patent proposals. Topics I worked on included conversational systems and representation learning for language.

INTELICLINIC | Python Developer
December 2015 - March 2017 | Warsaw, Poland
I prototyped sleep staging classifiers, built data processing pipelines and RESTful APIs and mined a large (+50k sleep sessions) dataset of sleep data from multiple sensors (EEG, EMG, pulse oximeter, movement).

WEBINTERPRET | Junior Python Developer Intern
July 2015 – September 2015 | Warsaw, Poland
I participated in full life cycle of an e-commerce internationalization platform

RESEARCH EXPERIENCE

HUMAN INTERACTIVITY AND LANGUAGE LAB, UNIVERSITY OF WARSAW | Research Assistant
February 2019 – ongoing | Warsaw, Poland
I work on compositional generalization in neural networks and psychologically plausible neural models of communication in multi-agent systems.

INSTITUTE OF COMPUTER SCIENCE, POLISH ACADEMY OF SCIENCES | Research Intern
April 2017 – November 2017 (7 months) | Warsaw, Poland
I worked on neural network-based tools for processing of Polish. My major contribution was developing and maintaing treehopper, a PyTorch library for tree-level sentiment labeling. This was part of Clarin-PL project, funded by the European Commission.

EDUCATION

UNIVERSITY OF WARSAW
Interdisciplinary Individual Studies
2012-2019 | Warsaw, Poland
I pursued an individual course of studies and obtained the following degrees:
- BAs in **Philosophy** (2015) with a thesis on modeling complex systems,
- BSc in **Cognitive Science** (2016) with a thesis on sentiment analysis using LSTMs,
- MSc in **Cognitive Science** (2019) with a thesis on compositional generalization in multi-agent communication.