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Education

Master's degree Computer science <u>University of Ljubljana</u>

2014 - 2017

Q Ljubljana, Slovenia

Bachelor of science Computer science <u>University of Ljubljana</u>

2012 - 2014

♀Ljubljana, Slovenia

Skills

Python (PyTorch, Pandas, Scikitlearn, NumPy, Flask) SQL (SQLite, Postgres) Natural Language Processing Machine Learning

Publications

 Enhancing deep neural networks with morphological information

Luka Krsnik

Software developer | ML engineer

Summary

A software developer/ML engineer, with 7 years of experience working on various natural language processing tasks. Seeking a practical challenge where I can use and expand my knowledge and experience.

Work experience

Software developer / ML Engineer

Mar 2017 – Jul 2024

<u>Centre for Language Resources and Technologies</u>

Collaborated closely with linguist researchers, to develop tools for text analysis and automated annotations.

- Enhanced and developed multiple tools actively utilized for research projects (<u>STARK</u>, <u>cordex</u>, <u>svala</u> and <u>LIST</u>)
- Trained, improved and maintained multiple models for tokenization, lematization, morphological annotation and dependency parsing (<u>Classla</u> and <u>trankit</u>)
- Developed neural networks, that solved various natural language processing problems (<u>standardness</u> and <u>stress assignment</u>)

Research Scientist

Aug 2018 - Oct 2021

<u>University of Ljubljana, Faculty of Computer and Information Science</u>

Participated in research involving cross-lingual embeddings and multilingual models (multilingual BERT)

- Designed experiments to assess the impact of adding morphological data on the performance of neural networks (<u>BERT</u>, <u>Fasttext+LSTMs</u>).
- Applied this approach to Named Entity Recognition (NER) and subsequently published findings in the <u>Natural Language Engineering</u> journal.
- Explored cross-lingual model transfer through experiments involving embeddings and anchor points (anchor points).