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# 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.

## Education

Master's degree
Computer science
University of Ljubljana
2014 - 2017
Ljubljana, Slovenia

Bachelor of science
Computer science
University of Ljubljana
2012 - 2014
Ljubljana, Slovenia

## Skills

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

## Publications

- Enhancing deep neural networks with morphological information

## Work experience

**Software developer / ML Engineer** Mar 2017 – Jun 2024

**Centre for Language Resources and Technologies**

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

- Enhanced and developed multiple tools actively utilized for research projects (STARK, cordex and Classla)
- Designed and implemented several LSTM neural networks, improving annotation quality across various languages (Classla, stress assignment)
- Developed a BERT-based tweet selection tool, for selecting tweets for subsequent manual annotation (standardness)

**Research Scientist** Aug 2018 – Oct 2021

**University of Ljubljana, Faculty of Computer and Information Science**

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 (BERT, Fasttext+LSTMs).
- Conducted end-to-end experiments across multiple languages, applying this approach to Named Entity Recognition (NER) and subsequently published findings in the Natural Language Engineering journal.
- Explored cross-lingual model transfer through experiments involving embeddings and anchor points (anchor points).