Luiza Sarzyniec (Orosanu)

PhD in computer science

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Research & Development Experience

Nov 2017 - Present

Machine Learning Engineer, Qwant — Epinal, France

Automatic query correction for the Qwant European search engine. Fixing isolated non-word errors using a spell-checker to generate low-distance candidates and a language model to re-rank the spelling corrections.

– edit distance, language model, word embedding, sequence to sequence learning
– Python, Shell, Git, GitLab, Docker, Linux

Oct 2016 - Oct 2017

Machine Learning Engineer, Xilopix — Epinal, France

Webpage classification and image color detection for the Xaphir French search engine. Mapping webpage content to a fixed-dimensional vector using TF-IDF and LSA. Performing both classification processes with fully connected neural networks.

– corpus building, data processing, TF-IDF, LSI, classification, neural networks
– Python, Ruby, Shell, Git, Gerrit, Docker, Elasticsearch, Linux

Dec 2012 - Feb 2016

PhD student, Inria — Nancy, France

Speech recognition to help communication with hearing impaired people. Combination of words and syllables into a hybrid language model. Using a similarity-based approach to add new words into the language model. Question detection using prosodic and linguistic features.

– hybrid language model, similar words, question detection
– Perl, Shell, Gnuplot, LaTeX, Git, distributed computations, Linux

Oct 2011 - Nov 2012

Junior Engineer, Inria — Nancy, France

Speech recognition for second language learning. Detection of incorrect entries (text not corresponding to the associated speech signal). Features based on the comparison between the forced alignment and two phonetic decoding.

– non-native speech, text-to-speech alignment, logistic regression
– Perl, Shell, Gnuplot, LaTeX, Linux

Feb 2011 - June 2011

Intern, Université de Lorraine — Nancy, France

Speech recognition with remote sound for home automation. Performance evaluation of different systems (configurations, decoding settings, models).

– remote sound, model adaptation, optimal setting
– Perl, Java, Shell, Linux

Feb 2010 - June 2010

Intern, Universitatea Stefan cel Mare — Romania

Head movement recognition for the gestural control of video games. Using a Wii remote to track the head position through glasses equipped with IR LEDs.

– movement detection, Wii remote, infrared sensors
– C#, Microsoft Visual Studio, Windows

Administrative Experience

Feb 2014 - Aug 2015

Responsible of the international network, Inria — Nancy, France

Organization of meetings and activities in order to facilitate the integration of foreigners working at Inria. Assisting with administrative procedures.

Education

Dec 2012 - Dec 2015

PhD in computer science — Nancy, France
Université de Lorraine, Inria

2010 - 2011

Master of research in computer science — Nancy, France
Université de Lorraine

2006 - 2010

Bachelor's degree in computer science — Romania
Universitatea Stefan cel Mare

Online Certifications

Machine Learning

Coursera, Stanford University, 2018

Deep Learning

Coursera, deeplearning.ai, 2018

Computer Skills

Machine Learning

Neural networks (dense, CNN, RNN), linear regression, logistic regression, word embedding, n-gram language model

Programming languages

Python *(keras, sklearn, gensim, numpy, pandas, spacy, fasttext, matplotlib, jupyter)*, Ruby, Perl, Shell Script, Java, C/C++, C#

Database

SQL, MongoDB, Elasticsearch

Software engineering

Git, GitLab, Docker, Jenkins, Gerrit, automation, testing, continuous integration

Operating systems

Linux, Windows

Programming challenges

ACM-ICPC

Romania - 2008, 2009

Scientific contributions

11 articles, PhD thesis

Language skills

English, French: fluent
Romanian: native