

Luiza Sarzyniec (Orosanu)

Machine Learning Engineer

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👤 20/08/1987, Romanian

Research & Development Experience

- Nov 2017
- Aug 2018 **Machine Learning Engineer, Qwant** Epinal, France
Automatic query correction for the Qwant European search engine. Fixed isolated non-word errors using a spell-checker to generate low-distance candidates and a language model to re-rank spelling corrections.
 - edit distance, language model
 - 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. Mapped webpage content to a fixed-dimensional vector using TF-IDF and LSA. Performed both classification processes with dense NNs.
 - corpus building, data processing, TF-IDF, LSA, 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. Combined words with syllables in a hybrid language model. Used a similarity-based approach to add new words into a language model. Detected questions using prosodic and linguistic features.
 - hybrid n-gram language model, similar words, question detection
 - Perl, Java, Shell, Gnuplot, LaTeX, Git, distributed computations, Linux
- Oct 2011
- Nov 2012 **Junior Engineer, Inria** Nancy, France
Speech recognition for second language learning. Detected incorrect entries (text not corresponding to the associated speech signal). Used 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. Evaluated the performance 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** Suceava, Romania
Head movement recognition for the gestural control of video games. Used 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
Organized meetings and activities in order to facilitate the integration of foreigners working at Inria. Assisted 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** Suceava, Romania
Universitatea Stefan cel Mare

Personal profile

Love to solve problems
Continuous learner
Adaptable
Deliberative

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

Programming challenges

ACM-ICPC

Romania - 2008, 2009

Scientific contributions

11 articles (2 Interspeech), PhD thesis

Language skills

English, French: fluent
Romanian: native