

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. Detection and correction of isolated non-word and in-context real word errors.
- 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
Knowledge extraction for the Xaphir search engine. Text classification to demonstrate the engine on sports related topics. Detection of main colors in images to improve the engine's filter by color results.
- corpus building, data processing, word embedding, classification, neural networks
- Python, Ruby, Shell, Git, Gerrit, Docker, Elasticsearch, Linux
- Dec 2012 - Feb 2016 **PhD student, Inria, RAPSODIE project** 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, ALLEGRO project** 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. Evaluation of different configurations, decoding settings, acoustic models and language models in order to determine the setup leading to optimal performance.
- remote sound, model adaptation, optimal setting
- Perl, Java, Shell, Linux
- Feb 2010 - June 2010 **Intern, Universitatea Stefan cel Mare** Romania
Recognition of head movements for the gestural control of video games. Experiment with a Wii remote that tracks the head position through glasses equipped with IR LEDs. Evaluation with 9 student volunteers.
- movement detection, Wii remote, infrared sensors
- C#, Microsoft Visual Studio, Windows

Administrative Experience

- Feb 2014 - Aug 2015 **Responsible of the international network** 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

Computer Skills

Machine Learning

Logistic regression, decision trees, n-gram language model, word embedding, neural networks

Programming languages

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

Database

SQL, MongoDB, Elasticsearch

Quality assurance

Git, Jenkins, Gerrit, GitLab, Docker

Operating systems

Linux, Windows

Programming challenges

ACM-ICPC (acm.ro)

International programming contest
Romania - 2008, 2009

Scientific contributions

11 articles, PhD thesis

Language skills

English, French: fluent
Romanian: native

Additional information

Interests

Machine learning, data science, Explore new horizons, take long walks, TV-shows, video games, board games

Gallup strengths

Restorative, Adaptability, Deliberative, Relator, Empathy

B driving license