

Luiza Sarzyniec (Orosanu)

PhD in computer science

🏠 Nancy, France
✉️ luiza.orosanu@gmail.com
🌐 [linkedin.com/in/lorosanu](https://www.linkedin.com/in/lorosanu)
🐙 github.com/lorosanu
🌐 www.lorosanu.net

Research & Development Experience

- Nov 2017 - Present **Machine Learning Engineer, Qwant** Epinal, France
Automatic query correction for the Qwant European search engine. Handle the detection and correction of isolated non-word and in-context real word errors.
- minimum edit distance, word embeddings, 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. The text classification project allowed making a demonstration of the engine on sports-related subjects. The neural network approach for the detection of main colors in images improved the engine's filter by color results.
- corpus building, data processing, word embeddings, 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. Proposed the combination of words and syllables into a hybrid model. Used the similarity between words to add new words into the model. Classified questions and statements using prosodic and linguistic features.
- hybrid language models, 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. Studied the detection of incorrect entries (text does not correspond to the associated speech signal). Compared the phonemes, phoneme durations, non-speech segments and likelihood ratios between the forced alignment and the 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. Tested different configurations, decoding settings, acoustic 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. The experiment involved using a Wii remote that tracks the head position through glasses equipped with IR LEDs. Evaluation with 10 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
Organize meetings and activities in order to facilitate the integration of foreigners working at Inria. Assist 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

Data science, machine learning
Explore new horizons, take long walks
TV-shows, video games, board games

Gallup strengths

Restorative, Adaptability,
Deliberative, Relator, Empathy

B driving license

Referents

Denis Jouvét, Senior Researcher Inria
Sébastien Demage, Tech leader Qwant
Cyril March, Co-founder Xilopix