

# Luiza Sarzyniec (Orosanu)

PhD in computer science

🏠 Nancy, France  
✉ luiza.orosanu@gmail.com  
🌐 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. 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 French 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

## 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

### Quality assurance

Git, Jenkins, Gerrit, GitLab, Docker

### Operating systems

Linux, Windows

## Programming challenges

### ACM-ICPC

Romania - 2008, 2009

## Scientific contributions

11 articles, PhD thesis

## Language skills

English, French: fluent  
Romanian: native

## Additional information

### Interests

Machine learning, data science

### B driving license