

# Dorian KODELJA

*PhD Student in Natural Language processing*

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## Education

- 2016–2019 PhD in Natural Language Processing .**  
CEA LIST Institute, Paris, France
- 2015–2016 Master Degree in Data mining & knowledge Management.**  
Graduate School of Engineering of the University of Nantes, France
- 2013–2016 Computer Science Degree,** Specialisation in Business Intelligence.  
Graduate School of Engineering of the University of Nantes, France
- 2011-2013 Bachelor degree in Science.**  
Graduate School of Engineering of the University of Nice, France
- 2011 Secondary School Diploma, *Cum laude*,** Specialization in Engineering and mathematics.  
Deodat De Severac High School, Toulouse, France

## Publications

### Journal

- PLOS ONE ***Multiagent Cooperation and Competition with Deep Reinforcement Learning.***  
(accepted) Ardi Tampuu, Tabet Matiisen, Dorian Kodelja, Ilya Kuzovkin, Kristjan Korjus, Juhan Aru, Jaan Aru, Raul Vicente - PLOS ONE 2016 **Impact Factor: 3.06**  
<https://arxiv.org/abs/1511.08779>

### Technical Reports

- 88milSMS ***Visualisation et analyse du réseau socio-sémantique 88milSMS.***  
Dorian Kodelja and Martin Guerre  
[http://88milSMS.huma-num.fr/references/guerre-martin\\_kodelja-dorian.pdf](http://88milSMS.huma-num.fr/references/guerre-martin_kodelja-dorian.pdf)

## Scientific & Computer Skills

- Languages PYTHON, JAVA, C/C++, MATLAB, BASH
- Software Git, GCC, Make, OpenCV, Eclipse, Visual Studio
- Scientific softwares NLTK, numpy, scikit-learn
- Machine learning tools Tensorflow, Theano, Caffe, WEKA
- Machine Learning skills Kernel methods, convolutional and recurrent neural networks, domain adaptation, logistic regression, dim. reduction, genetic algorithm, reinforcement learning, natural language processing, computer vision

## Languages

- French** Native
- English** Fluent, TOEIC 975/990
- German** Basics

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## Detailed Experience

### Internships

**March 2016 - Sept 2016** **Emotion Recognition in videos using CNNs**, *CEA LIST, Paris, France*, Final-year internship.

Instructors Hervé Le Borgne (CEA LIST)

Description Emotion detection in a natural context using Face detection and tracking and convolutional neural networks (CNNs)

**June 2015 - Sept 2015** **Multi-agent reinforcement learning**, *Computational Neuroscience Lab, Tartu, Estonia*.

Instructor Raul Vicente

Description I adapted Deepmind Deep Reinforcement Learning code to allow multiple agents to learn to compete or collaborate on Atari2600 games; I also experimented with Q-Learning to allow communication to emerge between agents.

**June 2015** **3<sup>rd</sup> Baltic-Nordic Summer School on Neuroinformatics**, *Multiscale computational neuroscience: Neurons, networks and systems*.  
Computational Neuroscience Lab, Tartu, Estonia

### Projects

**2015 - 2016** **Automated computer forensics.**

I experimented multiple approaches to use human knowledge to improve feature selection on a network forensic dataset, mostly using SVM and genetic algorithms

**2014 - 2015** **Visualisation and analysis of the socio-semantic network of an SMS corpus.**

I developed an analysis and visualisation solution with NLTK, SQLServer and Gephi to study the socio-semantical communities inside a corpus of 88000 SMS.

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## References

### CEA LIST

**Hervé Le Borgne**, *Senior Research Scientist in computer vision*.

CEA Saclay - Nano-INNOV, Bat 861 - PC 173, F91191 Gif Sur Yvette Cedex France

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**Olivier Ferret**, *Senior Research Scientist in Natural Language Processing*.

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### Computational Neuroscience Lab, Tartu

**Raul Vicente**, *Senior Research Scientist and group leader of the Computational Neuroscience Lab*.

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