



Hugo Mougard

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08/18-now	Senior Machine Learning Engineer , <i>source{d}</i> , Nantes, France.
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Empower developers by producing data-aware tooling.

03/17-08/18 Machine Learning Consultant, Freelance, Nantes, France.

ML, NLP, NLU and CV consultancy & training.

10/16-02/17 **Deep Learning Engineer**, CogniTalk, Nantes, France.

NLP and NLU engineering.

09/14-09/16 **Ph.D. Student**, *University of Nantes*, Nantes, France.

Research multimodal content alignment using deep learning (CV, NLP and NLU research).

 $03/14 - 08/14 \quad \textbf{Research Intern}, \textit{National Institute of Informatics}, \textit{Tokyo}, \textit{Japan}.$

Simplify text automatically (NLP research).

04/13-07/13 **Research Intern**, Dublin City University, Dublin, Republic of Ireland.

Retrieve information in medical records (NLP research).

04/12-07/12 **Research Intern**, *University of Nantes*, Nantes, France.

Study and organize grammatical inference litterature and code (NLP research).

Education

2014–2016 Ph.D. in Computer Science, *University of Nantes*, Nantes, France, undefended.

Research ways to align multimodal content with deep learning.

2012–2014 M.Sc. in Computer Science, University of Nantes, Nantes, France.

Specialization in Machine Learning & Natural Language Processing

2009–2012 B.Sc. in Computer Science, University of Nantes, Nantes, France.

Research Interests

My research interests are centered around natural language processing, natural language understanding and machine learning on code.

Software

Frameworks Good knowledge and experience in several machine learning and natural language processing frameworks: PyTorch, DGL, sklearn, bigARTM, Stanford CoreNLP, Gen-

sim, UIMA (non-exhautive)

Programming Language agnostic with more experience in Python, Java and Bash. languages

Publications

International Conferences

- [1] Vadim Markovtsev, Waren Long, Hugo Mougard, Konstantin Slavnov, and Egor Bulychev. Style-analyzer: Fixing code style inconsistencies with interpretable unsupervised algorithms. In *Proceedings of MSR*, 2019.
- [2] Florian Boudin, Hugo Mougard, and Benoit Favre. Concept-based summarization using integer linear programming: from concept pruning to multiple optimal solutions. In *Proceedings of EMNLP*, 2015.

International Workshops

- [3] Waren Long, Vadim Markovtsev, Hugo Mougard, Egor Bulychev, and Jan Hula. Identifying collaborators in large codebases. In *Proceedings of ML4SE (MSR-Colocated Workshop)*, 2019.
- [4] Florian Boudin, Hugo Mougard, and Damien Cram. How document pre-processing affects keyphrase extraction performance. In *Proceedings of COLING (WNUT Workshop)*, 2016.
- [5] Hugo Mougard, Matthieu Riou, Colin De La Higuera, Solen Quiniou, and Olivier Aubert. The paper or the video: Why choose? In *Proceedings of WWW (SAVE-SD Workshop)*, 2015.

Technical Reports

[6] Lorraine Goeuriot, Liadh Kelly, Johannes Leveling, Hugo Mougard, Gareth Jones, Pavel Pecina, and Jan Hajič. Report on query expansion techniques. In *Khresmoi Project Public Deliverable*, 2014.

Workshops

- o Understand your code with Machine Learning on Source Code, DevFest Nantes, 2019.
- The Deep Learning Codelab (in French), DevFest Nantes, 2017.
- o Linear & Logistic Regression (in French), Nantes Machine Learning Meetup, 2015.

Talks

2019

- Overton, Apple-flavored ML (in French), Nantes Machine Learning Meetup.
- Tech & Environmental Collapse, source{d} Meetup.
- o Machine Learning for Large Scale Code Analysis, KTH TCS Seminar.

2018

- o Bootstrapping Machine Learning on Code with ideas from NLP, GOTO Nights Copenhagen.
- o Ins and outs of Machine Learning (in French), Data Science and Machine Learning Special, ENI.

2017

• Generative Adversarial Networks, a New Paradigm to Train ANNs (in French), Nantes Machine Learning Meetup.

2016

- Artificial Intelligence: How Google Defeated One of the Best Go Players (in French), Nantes University Public Conference.
- o Solving Go with Machine Learning (in French), PhD Society (LOGIN) Talk.
- Neural Programming (in French), Nantes Machine Learning Meetup.

2015

o Sequence to Sequence Learning with Neural Networks (in French), Nantes Machine Learning Meetup.

Languages

French Mother tongue

English **Expert**

Spanish Good reading comprehension

Japanese Basic knowledge