

# QUENTIN BOUNIOT

105 Rue Didot ◊ Paris, France 75014

(+33) · 626072685 ◊ [quentin.bouniot@cea.fr](mailto:quentin.bouniot@cea.fr)

<https://qbouniot.github.io> ◊ <https://www.linkedin.com/in/quentin-bouniot/>

## EDUCATION

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**CEA-List, Université Paris-Saclay / Université Jean-Monnet Saint-Étienne** 2019-Present  
*PhD in Computer Science* Paris, France

Thesis : "Few-Shot Learning : Application to Object Detection  
and Semantic Instance Segmentation",  
Advisor : Prof. Amaury Habrard

**CentraleSupélec, Université Paris-Saclay** 2015-2019  
*M.Sc in Computer Science* Paris, France  
Majoring in Robotics and AI

**Université de Lorraine** 2018-2019  
*M.Sc in Computer Science* Nancy, France  
Majoring in Machine Learning, Vision and Robotics

**Higher School Preparatory Classes** 2013-2015  
*Section Mathematics and Physics* Bordeaux, France  
Intensive preparatory course for national competitive exams to the *grandes écoles*.

**Baccalauréat** 2013  
*Major in Mathematics* Tahiti, French Polynesia  
High Honors

## WORK EXPERIENCE

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**CEA-List, Université Paris-Saclay** April - September 2019  
*AI Research Intern* Paris, France  
Studying the impact of adversarial examples on person re-identification systems.  
Improving the robustness of person re-identification systems using deep learning.

**SmartBuild Asia** February - August 2018  
*Data Scientist Intern* Kuala Lumpur, Malaysia  
Automatic gathering of online complex data and matching with existing information.  
Matching millions of unstructured sentences in both Malay and English to the construction project they were referring to.  
Summarization of web pages in a few sentences with high accuracy.

**Orange France** July 2017 - January 2018  
*Intern in the Department of Cognitive Computer Science* Paris, France  
Development of tools for Conversational Agents  
Architecture development for conversational agents that support collaborative learning.

## TEACHING

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### Algorithms and complexity

Teaching Assistant, CentraleSupélec, Université Paris-Saclay

2020-Present

Paris, France

## PUBLICATIONS

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### CONFERENCE PROCEEDINGS

- **Quentin Bouniot**, Romaric Audigier, Angélique Loesch. "Optimal Transport as a Defense Against Adversarial Attacks." In *International Conference on Pattern Recognition (ICPR)*, 2020.
- **Quentin Bouniot**, Romaric Audigier, Angélique Loesch. "Vulnerability and Defense of Person Re-Identification Models to Adversarial Attacks." In *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops*, 2020. (**DeepMind Travel Award.**)

### WORKSHOPS

- **Quentin Bouniot**, Ievgen Redko, Romaric Audigier, Angélique Loesch, Amaury Habrard. "Putting Theory to Work : From Learning Bounds to Meta-Learning Algorithms." In *NeurIPS Workshop on Meta-Learning (MetaLearn)*, 2020.
- **Quentin Bouniot**, Ievgen Redko, Romaric Audigier, Angélique Loesch, Amaury Habrard. "Vers une meilleure compréhension des méthodes de méta-apprentissage à travers la théorie de l'apprentissage de représentations multi-tâches." In *Conférence sur l'Apprentissage Automatique (CAp)*, 2021. (**Oral Presentation**)

### MANUSCRIPTS

- **Quentin Bouniot**, Ievgen Redko, Romaric Audigier, Angélique Loesch, Yevhenii Zotkin, Amaury Habrard. "Towards Better Understanding Meta-learning Methods through Multi-task Representation Learning Theory." arXiv preprint *arXiv :2010.01992*, 2020. <https://arxiv.org/abs/2010.01992>

## PROFESSIONAL SERVICES

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### PEER REVIEW

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), Special Issue on *Learning with Fewer Labels in Computer Vision*, 2021
- Neural Information Processing Systems (NeurIPS), 2021
- International Conference on Machine Learning (ICML), 2021
- International Conference on Artificial Intelligence and Statistics (AISTATS), 2021
- NeurIPS Workshop on Meta-Learning (MetaLearn), 2020

## INVITED TALKS

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### DataIA Workshop "Safety & AI"

CentraleSupélec, Université Paris-Saclay

23th September 2020

Paris, France

Presentation of our published work on adversarial attacks against Person Re-Identification systems and their defenses.

## TECHNICAL SKILLS

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<b>Computer Languages</b>	Python, C++, Matlab, Java, Javascript
<b>Machine Learning</b>	Pytorch, Keras, Tensorflow, Scikit-Learn
<b>Systems</b>	Unix, Windows, SQL, Git, Vim

## LANGUAGES

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<b>French</b>	Native Language
<b>English</b>	C1 - CentraleSupélec TOEFL ITP : 610/677
<b>Japanese</b>	A2

## VOLUNTARY SERVICES

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<b>Supélec Rézo</b>	2015 - 2017
<i>Executive Board member</i>	<i>Paris, France</i>
Management and maintenance of the IT and network infrastructure of the CentraleSupélec campus (about 1000 users). Administrator of several servers.	
<b>CentraleSupélec Gaming club</b>	2015 - 2017
<i>President</i>	<i>Paris, France</i>
Manage and promote video-games events on the campus.	
<b>Student Gaming Network</b>	2015 - 2017
<i>Member</i>	<i>Paris, France</i>
Federation of French students' associations of eSport. Organize every year the <i>Student Gaming League</i> , an eSport tournament for students in France.	