

# Leroy Pascal

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Single · Belgian  
28/08/92 (Liège – Belgium)  
Driving license B

## EDUCATION

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- 08.2018 – PRESENT      **PHD STUDENT IN MACHINE LEARNING**  
Faculty of applied sciences, University of Liege, Belgium
- Advisors: Damien Ernst and Jonathan Pisane.
  - Focus on multi-agent reinforcement learning.
- 09.2016 – 09.2018      **MASTER'S DEGREE IN COMPUTER SCIENCE AND ENGINEERING**  
Faculty of applied sciences, University of Liege, Belgium
- Master thesis: Automatic defect recognition in X-ray imaging by machine learning (in collaboration with X-Ray Imaging Solutions).
  - Cum Laude.
- 09.2010 – 09.2016      **BACHELOR'S DEGREE IN ENGINEERING**  
Faculty of applied sciences, University of Liege, Belgium

## WORK EXPERIENCE

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08. 2018 – PRESENT      **MONTEFIORE INSTITUTE, UNIVERSITY OF LIEGE, BELGIUM**  
Research engineer
- Projects with industrial consortia of Belgian companies:
- IRIS: responsible for the design of environments and algorithms for multi-agent reinforcement learning for decision-aid. Partners: JCD, ACIC, Multitel, ERM.
  - IADAS: responsible for reducing and optimising neural networks for embedding in drones and satellites. Partners: Deltatec, ALX Systems, Spacebel, Multitel.
10. 2017 – 12. 2017      **X-RAY IMAGING SOLUTIONS – LIEGE, BELGIUM**  
Student trainee
- Development of image processing filters dedicated to X-ray image optimisation.

## PERSONAL EXPERIENCE

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09. 2014 – 09. 2016      **AGEL ASBL – LIEGE, BELGIUM**  
Treasurer (2014-2015) and President (2015-2016)
- The “Association Générale des Étudiants Liégeois” is a non-profit organisation in charge of the holding of main student events (turnover > €300k, 15000 students).
  - As Treasurer, responsible for the financial viability and accounting management.
  - As President, responsible for managing the team, public communication and major choices.
09. 2013 – 09. 2016      **FEDE ULIEGE ASBL – LIEGE, BELGIUM**  
Elected member of the general assembly and member of the Board of Directors of Ulg (2015-2016)
- The “Fédération des étudiants ULiège” is a non-profit organisation in charge of representing students to academic authorities (23000 ULiège students).
  - Member of the Board of Directors of the University of Liege to represent the Fede and the students.

## PUBLICATIONS

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2022	Value-based CTDE methods in symmetric two-team Markov Game: from cooperation to team competition. NeurIPS-22: Deep Reinforcement Learning Workshop. <u>Pascal Leroy</u> , Jonathan Pisane and Damien Ernst.
2020 - 2021	QVMix and QVMix-Max: extending the deep quality-value family of algorithms to cooperative multi-agent reinforcement learning. AAAI-21: Workshop on Reinforcement Learning in Games. <u>Pascal Leroy</u> , Damien Ernst, Pierre Geurts, Gilles Louppe, Jonathan Pisane, and Matthia Sabatelli.

## TEACHING

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2020-21-22-23	Optimal decision-making for complex problems.
2020	Advanced Machine Learning.
2019-20	Introduction to artificial intelligence.
2019-20	Complementary computer science course.

## PERSONAL SKILLS

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<b>Language</b>	<i>French</i> : Native <i>English</i> : Professional proficiency
<b>Programming</b>	Python, Git, Bash, C, C++, Java, Matlab
<b>Libraries</b>	PyTorch, TensorFlow, Numpy, Matplotlib, PyMarl, RLlib, TorchRL, Gym,...