Erwan Lecarpentier

PhD

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Education

PhD in Computer Science 2016–2020

ONERA (The French Aerospace Lab) and ISAE-SUPAERO (Institut Supérieur de l'Aéronautique et de l'Espace), Toulouse (France).
Reinforcement Learning in Non-Stationary Markov Decision Processes,
advised by Prof. Emmanuel Rachelson and Dr. Guillaume Infantes.

Exchange year 2015–2016

Graduate student, University of Stuttgart (Germany).
Reinforcement Learning, Machine Learning, Robotics and Computer Vision.

French engineering school (~ Master's degree) 2013–2015

ISAE-SUPAERO (Institut Supérieur de l'Aéronautique et de l'Espace), ENSICA program, Toulouse (France).
Control Theory, Optimization, Statistic, Applied Mathematics, Programming, Mechanical Engineering, Fluid Mechanics.

French preparatory class 2011–2013

Saint-Brieuc (France), *A+.*
Leading to competitive exam for entry to Graduate Engineering Schools.
Advanced theoretical Mathematics, Physics and Engineering Sciences.

Baccalaureate 2009–2011

Lamballe (France), *A+ with distinction.*
Equivalent to A level, with specialization in Mathematics.

Experience

Visiting PhD student at Brown University, Providence (USA). 2019 (4 months)

Research project in Lifelong Reinforcement Learning, with Prof. Michael L. Littman and PhD students David Abel, Kavosh Asadi, and, Yuu Jinnai.

Visiting graduate student at University of Stuttgart. 2016

Research internship in Reinforcement Learning, with Dr. Marc Toussaint, MLR (Machine Learning & Robotics Lab).
Optimal control on a real-world robot; optimization using Reinforcement Learning algorithms (Policy Search, Bayesian Optimization, LSPI, etc.)

Research internship in Statistic, *ENAC,* Toulouse (France). 2015 (2 months)

Statistical modelling of the air-travel market and airline behavior.

References available upon request

Publications

Lipschitz Lifelong Reinforcement Learning.

Erwan Lecarpentier, David Abel, Kavosh Asadi, Yuu Jinnai, Emmanuel Rachelson, and Michael L. Littman.
Submitted.

Non-Stationary Markov Decision Processes a Worst-Case Approach using Model-Based Reinforcement Learning.

Erwan Lecarpentier and Emmanuel Rachelson.
NeurIPS 2019.

Open Loop Execution of Tree-Search Algorithms.

Erwan Lecarpentier, Guillaume Infantes, Charles Lesire, and Emmanuel Rachelson.
IJCAI, 2018.

Empirical evaluation of a Q-Learning Algorithm for Model-free Autonomous Soaring.

Erwan Lecarpentier, Sebastian Rapp, Marc Melo, and Emmanuel Rachelson.
JFPDA, 2017.

Teaching Experience

Primary Instructor	**Algorithms Complexity,** ISAE-SUPAERO. **Python Programming,** ISAE-SUPAERO.
Teaching Assistant	**Machine Learning,** ISAE-SUPAERO. **Optimization,** ISAE-SUPAERO. **Graph Theory,** ISAE-SUPAERO.

Awards

Best PhD thesis award – Fondation ISAE-SUPAERO 2020

Languages

French	*Mother tongue*
English (TOEFL 553, 2013)	*Proficient working English*
German (B1+)	*1 year of exchange in Stuttgart*

Trivia

Playing guitar and bass guitar, member of a music band. 2013–

President of the student association N6Kn'Sat. 2014–2015
Student project: development, conception and launching of mini-satellites; collaboration with students of the Aerospace School SSAU (Russia).

Responsible for communication in the student office of ISAE-SUPAERO ENSICA. Creation of communication media; management of events. 2014

Graphic designer for the French air show "Airexpo", Toulouse (France). 2014

References available upon request