Erwan Lecarpentier

PhD student

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Education

PhD student, *ONERA (The French Aerospace Lab) ISAE-SUPAERO (Institut Supérieur de l'Aéronautique et de l'Espace), Toulouse (France).*   **2016–2019**
Reinforcement Learning in Non-Stationary Markov Decision Processes.

Exchange year, *Graduate student, University of Stuttgart.*   **2015–2016**
Reinforcement Learning, Machine Learning, Robotics and Computer Vision.

French engineering school, *ISAE-SUPAERO, ENSICA program (Institut Supérieur de l'Aéronautique et de l'Espace),* Toulouse (France).   **2013–2015**
Leading to a French Engineer's degree, equivalent to a Master's degree.
Control Theory, Optimization, Statistic, Applied Mathematics, Coding.

French preparatory class, Saint-Brieuc (France), *A+.*   **2011–2013**
Leading to competitive exam for entry to Graduate Engineering Schools.
Advanced theoretical Mathematics, Physics and Engineering Sciences.

Baccalaureate, Lamballe (France), *A+ with distinction.*   **2009–2011**
Equivalent to A level with specialization in Mathematics.

Experience

Research project in Lifelong Reinforcement Learning, *with Pr. Michael L. Littman and his PhD students, Brown University, USA.*   **2019** (4 months)

Research internship in Reinforcement Learning, *with Dr. Marc Toussaint, MLR (Machine Learning & Robotics Lab), University of Stuttgart.*   **2016** (6 months)
Optimal control on 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 behavior of the airlines.

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).

Languages

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

Computer skills

Programming: C++; C; Java; JavaScript; HTML; CSS.
OS: Windows; Linux.
Software: Qt creator; Matlab; R; Eclipse; Catia; Office software.

Leisure activities

Playing guitar and bass guitar, member of a music band
Responsible for communication in the student office of ENSICA
Production of communication media; management of events.

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

References available upon request

List of publications

Erwan Lecarpentier, David Abel, Kavosh Asadi, Yuu Jinnai, Emmanuel Rachelson, and Michael L. Littman. Lipschitz Lifelong Reinforcement Learning. Submitted to NeurIPS 2019, 2019.

Erwan Lecarpentier and Emmanuel Rachelson. Non-Stationary Markov Decision Processes a Worst-Case Approach using Model-Based Reinforcement Learning. arXiv preprint arXiv:1904.10090, 2019. Submitted to NeurIPS 2019.

Erwan Lecarpentier, Guillaume Infantes, Charles Lesire, and Emmanuel Rachelson. Open Loop Execution of Tree-Search Algorithms. IJCAI, 2018.

Erwan Lecarpentier, Sebastian Rapp, Marc Melo, and Emmanuel Rachelson. Empirical evaluation of a Q-Learning Algorithm for Model-free Autonomous Soaring. arXiv preprint arXiv:1707.05668, 2017.

References available upon request