

RonanFruit



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languages

French: mother tongue
English: high proficiency
Italian: good command

programming

Python, Matlab, R
Java, C++
L^AT_EX

Research Experience

- 2015–Now **INRIA Lille - Nord Europe, Sequel team** Lille, France
PhD Student
Research Topic: Transfer of knowledge in Reinforcement Learning for the improvement of Exploration and Generalization
Advisors: Alessandro LAZARIC, Daniil RYABKO
My research interests lie in designing On-line Reinforcement Learning algorithms with provable good performance. During my PhD, I showed the statistical advantage of some hierarchical RL methods (theoretically and empirically) and analysed the exploration–exploitation dilemma under various form of prior knowledge.
- Feb.–Jun. 2014 **Cranfield University** Cranfield, United Kingdom
Research Intern
Research Topic: Design of new real-time Inference & Pattern Recognition Algorithms for Command and Control Systems
Advisor: Hyo-sang SHIN
Full-time 5-month Research Study. Tools studied: Truncated & Square-Root Unscented Kalman Filters, Interacting Multiple Models, Statistical Hypothesis Tests.

Work Experience

- 2013–2015 **Airbus Group** Paris, France
Apprentice R&D Engineer
Mission: Design of real-time Prediction & Decision Aid Algorithms for Command and Control Systems
Worked in several R&D teams in parallel of my studies (1-2 days/week, full time during all academic holidays and for my Master Thesis -8 months-).
Topics studied: Guidance, Navigation & Control, Game Theory, Linear Complementarity Programming, Entropy maximization.

Education

- Aug. 2017 **Data Science Summer School (DS3 2017)** École Polytechnique Paris Tech
- Jun. 2017 **Machine Learning Summer School (MLSS 2017)** Max Planck Institute for Intelligent Systems
- 2014–2015 **M.Sc. in Applied Mathematics [GPA: 4.12/4.33]** CentraleSupélec
(Emphasis in Machine Learning)
CentraleSupélec is one of France's leading engineering schools (ranked 2nd)
Thesis: "Design of real-time Prediction & Decision Aid Algorithms for Command and Control Systems" | Advisors: David VIGOUROUX (Airbus Group), Assoc. Prof. Iasonas KOKKINOS (CentraleSupélec)
- 2012–2014 **B.Sc. in Engineering [GPA: 4.08/4.33]** CentraleSupélec
(Emphasis in Mathematics)

Publications (sample)

- 2018 **Near Optimal Exploration-Exploitation in Non-Communicating MDPs** NeurIPS 2018
Ronan Fruit, Matteo Pirota, Alessandro Lazaric
Spotlight Presentation (top 16% of accepted papers)
- 2018 **Efficient Bias-Span-Constrained Exploration-Exploitation in RL** ICML 2018
Ronan Fruit, Matteo Pirota, Alessandro Lazaric, Ronald Ortner
Spotlight Presentation (top 50% of accepted papers)
- 2017 **Regret Minimization in MDPs with Options without Prior Knowledge** NIPS 2017
Ronan Fruit, Matteo Pirota, Alessandro Lazaric, Emma Brunskill
Spotlight Presentation (top 17% of accepted papers)

Awards

- 2015 **Best Student Award** CentraleSupélec
Best academic results among all engineering students who graduated from CentraleSupélec in 2015 and spent three years at the school