

Reinforcement learning

**ECTS** : 2

**Volume horaire** : 21

**Description du contenu de l'enseignement :**

- Introduction of Reinforcement Learning
- Multi-armed Bandits problem
- Finite Markov Decision processes
- Dynamic programming
- Sample-based Learning Methods (Monte-Carlo methods, Temporal-difference learning)
- Prediction and Control with Function Approximation

**Compétence à acquérir :**

- Build a Reinforcement Learning system for sequential decision making. Understand how to formalize your task as a Reinforcement Learning problem, and how to begin implementing a solution.
- Understand RL algorithms (Temporal-Difference learning, Monte Carlo, Q-learning, Policy Gradients etc).

**Mode de contrôle des connaissances :**

Project

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