

## EXPERIENCE

- PhD Candidate** Oct 2022 — Oct 2025  
INRIA-CRISTAL, equipe-projet Scool Lille, FR
- Semantic Representations for Interpretable Reinforcement Learning supervised by Prof. Philippe Preux and Dr. Riad Akroun.
- Researcher (Intern)** Mar 2022 — Aug 2022  
INRIA-CRISTAL, equipe-projet Scool Lille, FR
- Semantic Representations for Interpretable Reinforcement Learning supervised by Prof. Philippe Preux and Dr. Riad Akroun. Applying RL algorithms to the learning of Decision Tree policies.
- Research Engineer (Intern)** Jun 2021 — Sep 2021  
ENSTA Bretagne Brest, FR
- Deep Reinforcement Learning for Autonomous Underwater Vehicles supervised by Prof. Benoit Clement and Prof. Gilles Le Chenadec. Studied Learning-Based Control with emphasis on stability of the control-loop.
  - Results were accepted for publication in [IFAC-CAMS 2022](#).
- President and Co-founder** 2018 — 2020  
Artificial Intelligence Student Society at the University of Manchester Manchester, UK
- Organised a range of events on AI and its applications/implications: debates, networking, talks from SMEs and University Researchers. Helped organise and led practical Workshop sessions for STEM students on Python.
  - Nominated for best academic society of the year twice in a row (10 out of 400).

## EDUCATION

- Master of Science, Computer Science, Excellence Track, Ranked 4/45** Sorbonne Université Sep 2020 — Sep 2022  
Machine Learning, Multi-Agent Systems, Logic, Algorithms, Optimization. The Excellence Track requires 2 additional courses in Neuroscience and a research internship in the summer.
- Bachelor of Science with Honours**, University of Manchester Sep 2016 — Jul 2020

## PROJECTS

- Semester-long project on Auto-Encoding DRL**, for the course Advanced ML and Deep Learning Oct 2021 — Feb 2022
- Pytorch library to compare GAIL and AEIRL on Mujoco benchmarks. Reproduce an ICLR 22 [paper](#)'s results using our library. Conference type poster summarizing results.
  - Final grade: 18/20 (rank: 1/63)
- Short project on Causal Structure learning in Bayesian Networks**, for the course Decision under Uncertainty Oct 2021 — Dec 2021
- Python library to learn Bayesian Networks given a database. Reproduce a NIPS 2019 [paper](#)'s results using our library.
  - Final grade: 20/20 (rank: 1/25)
- Semester-long project on Model-Based RL**, supervised by Dr. Mehdi Khamassi for the course AI for robotics Oct 2021 — Feb 2022
- Reproduce results from a Nature 2018 [paper](#). Reproduce results on DynaQ from Sutton Barto. Final grade: 16/20 (rank: 2/20)
- Semester-long thesis on Reinforcement Learning**, Supervised by Prof. Olivier Sigaud Feb 2021 — June 2021
- Compared the Policy Gradient with the Cross Entropy Method on the Pendulum benchmark. Implemented both algorithms in Python using Pytorch. Provided an explanation for the differences in performance supplemented by new visualizations of the exploration of the neural network parameters space during training.
  - Defended our work in front of three professors and got a grade of 16/20.

## SKILLS AND COMMUNITY ACTIVITY

- Technologies** Python, Pytorch with GPU, Stable-Baselines 3, Java, R, Matlab, ROS, Linux, Git.
- Community** Tutor for 10 first year Maths students, Teacher for beginner's level French for 10 students, Teacher for 8 years old in disadvantaged schools in Paris for S.O.C.R.A.T.E association.