

# Pierre POTEI

Engineering student at  
ENSTA Paris

✉ potepierre1@gmail.com

☎ +33789644222

🌐 [My portfolio](#)

@ [My LinkedIn](#)

## About Me

I want to put the technical skills I learned at school at work towards building AGI.

I am especially interested in cooperative and/or competitive multi-agent deep reinforcement learning systems, in continuous 2D or 3D environments such as the ones found in video games or robotics problems.

## Spoken languages

· French : native

· English : C2

· Spanish : B1

· Japanese : A1

## Certifications

· TOEIC Listening and Reading  
980/990

## Skills

Computer languages  
Python, C++, C#, C, Matlab, SQL.

Frameworks  
Pytorch, Keras, Tensorflow, Unity  
ML-Agents, OpenAI Gym, PettingZoo,  
ROS.

Softwares  
Unity, Blender, SolidWorks, Premiere  
Pro, Photoshop, Illustrator, Microsoft  
Office.

Looking for 6 months internship in multi-agent reinforcement learning starting in April.

## Work Experience

- 2022 Research engineer, A\*STAR I2R, Singapore  
5 months internship working on multi-robot environment exploration through deep reinforcement learning. I designed a deep reinforcement learning agent and environment simulation making it possible to reward environment discovery as well as promoting multi-robot loop closure to improve the accuracy of the map.
- 2021-2022 Autonomous exploration engineer, Parrot, Paris  
6 months internship developing an autonomous exploration algorithm for a quadcopter drone. After doing bibliographic research on state of the art algorithms, the most promising solution has been prototyped on Parrot's flight simulator. This project leverages concepts from motion planning, guidance for autonomous systems and data structures for environment representation.
- 2021 Research Intern, University of Oslo RITMO lab  
3 months research internship developing and implementing rhythm detection and generation on a swarm of musical robots. I designed a robot simulator in Unity to test my algorithms and the rhythm dynamics that emerge during play. [A paper](#) detailing this work has been published.

## Education

- 2019-Now ENSTA Paris student (Top French engineering school)  
Master's degree in AI.  
Relevant courses : Deep learning, Reinforcement learning, Multi-Agent systems, Advanced Machine Learning and Autonomous Agents, Optimisation and Metaheuristics, Learning for robotics, Perception for autonomous systems, Natural Language Processing, Applied Operational Research, Artificial Evolution, GPGPU programming for AI.
- 2017-2019 Undergraduate studies at Saint-Louis High School, Paris  
Two years of intensive training in Mathematics, Physics, Mechanical Engineering, Computer Science and Chemistry to prepare for nationwide competitive entry exams to engineering schools.

## Projects

- 2022 DRL Racer  
Team project working designing a reinforcement learning agent which competes with others on a race-track in the racing video game TrackMania.
- 2021 HummingBirds AI  
Reinforcement learning project using Unity ML-Agents where a hummingbird AI competes with a human player to drink more flower nectar than the player in a randomly generated 3d world.
- 2021 Semi supervised learning on CIFAR-10  
Pytorch implementation of the Google Fixmatch algorithm to label a set of images where most of the dataset is not annotated.

## Miscellaneous

Sport : volleyball, badminton  
Hobbies : photo and video editing, mix, DIY, video games  
Student activities : DJ at SONO, ENSTA's student association of DJs.