## Francesco Frattolillo

## Curriculum Vitae

## Education

2017-2021: MSc in Artificial Intelligence and Robotics, Sapienza University of Rome, Rome.

MSc Thesis: "Adaptive Playing and Opponent Modeling in Competitive Games", supervised by Prof. Luca

locchi

Final Grade: 110/110L

2014–2017: **BSc in Computer Engineering**, *University of Naples Federico II*, Naples.

BSc Thesis: "Fusione di dati radar e multispettrali per il monitoraggio di infrastrutture critiche", supervised

by Prof. Giuseppe Ruello *Final Grade*: 98/110

## Research Experience

Sapienza University of Rome, Rome

2022 Mixed Human-UAV Reinforcement Learning: Literature Review and Open Challenges .

Accepted at the ICCAS Conference and to be presented in June

2022 Participated in the Eurocontrol Masterclass challenge.

The topic was conflict resolution with reinforcement learning in a Multi-UAV scenario.

2022 - Review of Multi-Agent Deep Reinforcement Learning Approaches.

present Currently working on a review on cooperative reinforcement learning solutions for multi-UAV applications.

2021 Adaptive Playing and Opponent Modeling in Competitive Games.

Proposed and implemented a new method to dynamically scale the opponent's strength, in proportion to the player's abilities, in a two player, perfect information, turn based, zero sum and competitive game.

Link to the Thesis, Link to the Code.

Advisor: Prof. Luca locchi, Full Professor, Sapienza University of Rome (Personal Web-page)

Supervised Master Students

Luca Faraoni, Multi agent model based reinforcement learning.

Computer skills

Programming Python, C++, Javascript, SQL, MATLAB, Java

Languages

Markup LaTex, HTML

Languages

Main Pytorch, RLlib, Numpy, Tensorflow, Matplotlib, OpenCV,...

Libraries

Software and Visual Studio Code, Spyder, Git, Docker, Eclipse, Netbeans

Tools