Dr. Nicolo' Brandizzi

PhD student at Sapienza university of Rome.
Researching Reinforcement Learning tied to Natural Language

"Follow the gradient"

CONTACTS

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- 🎂 17/01/1995

SKILLS

Programming

Python	●●●●●
Bash	●●●●○
LaTeX	●●●●○
Matlab	●●●○○
C++	●●○○○
HTML/CSS	●●○○○

Frameworks

Numpy	●●●●○
Pytorch	●●●●○
Tensorflow	●●●○○
OpenCV	●●●○○

Operating Systems

MacOS	●●●●●
Linux	●●●●●
Windows	●●●○○

Languages

Italian	Native
English	C1
Spanish	A1

🏴 ACHIEVEMENTS, HONOURS AND AWARDS

- 🏆 First classified for Ph.D. scholarship at Sapienza University of Rome, Italy.
- 🏆 Spotlight paper in Adaptive and Learning Agents Workshop [ALA21] at AAMAS.
- 🏆 Winner of a research scholarship (bando per avvio di ricerca) at Sapienza University of Rome, Italy.
- 🏆 Elected as a member of the council of department (consiglio di dipartimento) at DIAG, Sapienza University of Rome.
- 🏆 Elected as the PhD Representative of my faculty.

🏛 ACADEMIC CAREER

Teaching Assistant

- › *02/2020 - 12/2021* - Tecniche di Programmazione
- › *02/2020 - 12/2021* - Seminars in Artificial Intelligence
- › *12/2021 - Ongoing* - Tecniche di Programmazione

Supervised Master Students

- › *Francesco Frattolillo*: Adaptive Playing and Opponent Modeling in Competitive Games
- › *Abdolhadi Rezaei*: Hand Gesture and Voice Recognition on RaspberryPi
- › *Luca Faraoni*: Multi agent model based reinforcement learning

Other

- › *01/07/2021 - 31/08/2021* - Contratto di prestazione occasionale : technical report on "Multi agent model based reinforcement learning"
- › *01/04/2022 - 30/08/2022* - Scientific visit at University von Amsterdam [UvA] under the supervision of Raquel Fernández, at the ILLC department

⚙ RESEARCH INTERESTS

Deep Reinforcement Learning [DRL]

Deep Neural Networks [DNN]

Vision model   Emergent Communication [Emcomm]

Natural Language Processing [NLP]

PUBLICATIONS

1. Brandizzi, N., Grossi, D., and Iocchi, L. (2021c). Rlupus: Cooperation through emergent communication in the werewolf social deduction game. *CoRR*, abs/2106.05018

2. Brandizzi, N., Bianco, V., Castro, G., Russo, S., and Wajda, A. (2021a). Automatic rgb inference based on facial emotion recognition. In *CEUR Workshop Proceedings*, volume 3092, pages 66–74

3. Aureli, R., Brandizzi, N., De Magistris, G., and Brociek, R. (2021). A customized approach to anomalies detection by using autoencoders. In *CEUR Workshop Proceedings*, volume 3092, pages 53–59

4. Brandizzi, N., Fanti, A., Gallotta, R., and Napoli, C. (2021b). Fefful: A few-examples fitness function learner. In *CEUR Workshop Proceedings*, volume 3092, pages 75–79

5. Brandizzi, N. and Iocchi, L. (2022). Emergent communication in human-machine games. In *Emergent Communication Workshop at ICLR 2022*

6. Brandizzi, N., Russo, S., Brociek, R., and Wajda, A. (2021d). First studies to apply the theory of mind theory to green and smart mobility by using gaussian area clustering. In *ICYRIME Conference*, volume 3118, pages 71–76

PEER REVIEW

Emergent Communication Workshop

👥 International Conference on Learning Representations [ICLR]

📅 2022   🔗 website

🎓 EDUCATION

📅 2020 - Ongoing   📍 Sapienza University of Rome, Italy

PhD Engineering in Computer Science

- **Research Group**: I am part of the Ro.Co.Co. lab at DIAG (Dipartimento di Ingegneria informatica, automatica e gestionale). My supervisor is Luca Iocchi.
- **PhD representative**: I was elected for the academic year that lasts from November 2021 to October 2022.
- **Member of the Department Council**: I was elected for the academics years that last from June 2021 to November 2023.

📅 2018 - 2020   📍 Sapienza University of Rome, Italy

M.Sc. of Engineering in Artificial Intelligence and Robotics

- **GPA**: 4/4 (110/110)
- **M.Sc. Thesis**: "Reinforcement Lupus: Cooperation through emergent communication in The Werewolf social deduction game", under supervision of Prof. Luca Iocchi.
- **10 months Erasmus**: University of Groningen, Netherlands.

📅 2015 - 2017   📍 Sapienza University of Rome, Italy

B.Sc. of Computer and Autonomous System Engineering

- **GPA**: 2.97/4 (101/110)
- **B.Sc. Thesis**: "Comparison Between Segmentation Methods", under supervision of Prof. Luigi Freda.
- **Internship at Alcor Lab**: under supervision of Prof. Fiora Pirri.

⇄ ONGOING EXPERIENCES

📅 03/2022 - Ongoing   📍 Amsterdam, Netherlands

Scientific visit at UvA

I have been accepted as a scientific visitor at Amsterdam university under the supervision of Raquel Fernández.

📅 11/2021 - Ongoing   📍 Rome, Italy

Member of ADI association (Associazione dottorandi in Italia)

I am a volunteer at ADI which helps doctoral student around Italy.

📅 11/2021 - 10/2022   📍 Rome, Italy

PhD student representative

I was elected as the PhD representative of my faculty.

📅 06/2021 - Ongoing   📍 Rome, Italy

Member of the Department Council, DIAG, Sapienza University

I was elected as a member of the Department Council where I know attend to organization matters.

📅 04/2018 - Ongoing   📍 Rome, Italy

Rotaract Club RTMM partner (socio)

I'm an active member of the club, mainly working as an informatic consultant. Check out our website!

← PAST EXPERIENCES

📅 03/2021 - 03/2022   📍 Rome, Italy

Erasmus Student Network [ESN] partner (socio)

I help with the overall organization events as well as connecting with incoming Erasmus students.

📅 06/2017 - 06/2018   📍 Rotaract Club RTMM, Rome, Italy

President of the Internal Commission

During this 12 months period I was responsible for the internal coordination between members and the organization of social events.

📅 09/2017 - 06/2018   📍 Sapienza University, Rome, Italy

Internship at Alcor Lab

- Worked as an inter on the European research project TRADR.
- Took part in the last review meet in Mestre, Italy.

📅 06/2014 - 09/2013   📍 California, San Francisco

Summer school camp

I attended an English course for the duration of 3 months.

📅 06/2013 - 09/2013   📍 California, Santa Barbara

Summer school camp at UCSB

I followed college classes for 3 months.

📅 06/2012 - 09/2012   📍 California, Los Angeles

Summer school camp at UCLA

I followed college classes for 3 months.