

# Roberto Capobianco

Italia

Presentazione:

CV valido ai fini della pubblicazione

## ESPERIENZA LAVORATIVA

01/2022 – ATTUALE

**SENIOR RESEARCH SCIENTIST – SONY AI**

12/2019 – 01/2022

**RESEARCH SCIENTIST – SONY AI**

01/08/2019 – 15/03/2021 – Roma, Italia

**RICERCATORE A TEMPO DETERMINATO (RTD-A) – SAPIENZA UNIVERSITY OF ROME**

Aree: Robotica, Explainable Artificial Intelligence, Reinforcement Learning, Deep Learning

11/2016 – 11/2019

**RESEARCH SCIENTIST – COGITAI, INC.**

08/2018 – 10/2019

**DEEP LEARNING SCIENTIST – RADICAL SOLUTIONS LLC**

02/2018 – 07/2019

**DOCENTE UNIVERSITARIA A CONTRATTO – SAPIENZA UNIVERSITY OF ROME**

Corsi: Artificial Intelligence, Laboratorio di intelligenza artificiale e grafica interattiva. Roma, Italia

03/2017 – 07/2019

**ASSEGNO DI RICERCA – SAPIENZA UNIVERSITY OF ROME**

Aree: Robotica, Reinforcement Learning, Robot Learning, Deep Learning, Benchmarking di Sistemi Robotici. Roma, Italia

## ISTRUZIONE E FORMAZIONE

11/2013 – 02/2017 – Roma

**PHD IN COMPUTER ENGINEERING – Sapienza University of Rome**

Areas: Robotics, Robot Learning, Artificial Intelligence. Advisor: Prof. Daniele Nardi.

08/2015 – 03/2016 – Pittsburgh (PA)

**RESEARCH SCHOLAR** – Robotics Institute, Carnegie Mellon University  
Professor: Prof. J. Andrew (Drew) Bagnell, Robotics Institute.

2013 – Örebro

**FIRST ÖREBRO WINTER SCHOOL IN ARTIFICIAL INTELLIGENCE AND ROBOTICS** – University of Örebro

2011 – 2013 – Roma

**LAUREA MAGISTRALE IN ARTIFICIAL INTELLIGENCE AND ROBOTICS** – Sapienza University of Rome

Graduation score: 110/110 cum laude.

2008 – 2011 – Pisa, Italia

**LAUREA TRIENNALE IN INGEGNERIA INFORMATICA** – Università di Pisa

Graduation score: 109/110.

## **COMPETENZE LINGUISTICHE**

Lingua madre: **ITALIANO**

Altre lingue:

## **COMPRESIONE ESPRESSIONE ORALE SCRITTURA**

Ascolto Lettura Produzione orale Interazione orale

**INGLESE** C2 C2 C2 C2 C2 **FRANCESE** A2 A2 A2 A2 A1 *Livelli: A1 e A2: Livello elementare B1 e B2: Livello*

*intermedio C1 e C2: Livello avanzato*

## **COMPETENZE DIGITALI**

### **Le mie competenze digitali**

Cognitive Robotics Machine Learning Python C C++ Microsoft Office Linux TensorFlow MXNet Artificial Intelligence HTML SVN, GIT, GitHub Robot Operating System (ROS) LaTeX Software-based conference: MICROSOFT TEAMS, ZOOM

## **ONORIFICENZE E RICONOSCIMENTI**

### **Onorificenze e Premi**

- 2016 AAI Robotics Fellowship, AAI, Phoenix, AZ, USA.
- 2015 Progetto di Avvio alla Ricerca, Sapienza University of Rome, Italy.
- 2014 Premio d'eccellenza, Sapienza University of Rome, Italy. Top 2% degli studenti laureandi nell'Anno Accademico 2012/2013
- 2014 Primo Posto, Computer Vision track, RoCKIn Camp 2014, RoCKIn@Work Challenge, Rome, Italy.
- 2013 Borsa di Studio Triennale per il Dottorato, Sapienza University of Rome, Italy.
- 2012–2013 Programma d'Eccellenza, Sapienza University of Rome, Italy.

**Capacità Organizzative**

- Esperienza pluriennale nell'insegnamento in corsi di laurea triennale e magistrale;
- Esperienza pluriennale nell'ambito della ricerca scientifica sia accademica che industriale;
- Buona esperienza nel lavoro sotto pressione e con scadenze;
- Buona esperienza con il lavoro autonomo e remoto;
- Membro del Comitato Organizzatore (e.g., RoCKIn, workshops) o volontario (e.g., RSS) per eventi locali ed internazionali;

**PUBLICATIONS****Pubblicazioni Selezionate**

1. Wurman, Peter R.; Barrett, Samuel; Kawamoto, Kenta; MacGlashan, James; Subramanian, Kaushik; Walsh, Thomas J.; Capobianco, Roberto; Devlic, Alisa; Eckert, Franziska; Fuchs, Florian; Gilpin, Leilani; Kompella, Varun; Khandelwal, Piyush; Lin, HaoChih; MacAlpine, Patrick; Oller, Declan; Sherstan, Craig; Seno, Takuma; Thomure, Michael D.; Aghabozorgi, Houmehr; Barrett, Leon; Douglas, Rory; Whitehead, Dion; Duerr, Peter; Stone, Peter; Spranger, Michael; Kitano, Hiroaki Outracing Champion Gran Turismo Drivers with Deep Reinforcement Learning. In: *Nature*, vol. 62, iss. 7896, pp. 223–28, 2022.
2. Capobianco, Roberto; Kompella, Varun; Ault, James; Sharon, Guni; Jong, Stacy; Fox, Spencer; Meyers, Lauren; Wurman, Peter R.; Stone, Peter Agent-Based Markov Modeling for Improved COVID-19 Mitigation Policies, *Journal of Artificial Intelligence Research (JAIR)*, 71 , pp. 953–992, 2020.
3. F. Riccio, R. Capobianco, and D. Nardi. Loop: Iterative learning for optimistic planning on robots. *Robotics and Autonomous Systems*, 136:103693, 2021
4. G. Sharon, J. Ault, P. Stone, V. Kompella, and R. Capobianco. Multiagent Epidemiologic Inference through Realtime Contact Tracing. In *Proceedings of the 20th International Conference on Autonomous Agents and MultiAgent Systems (AAMAS)*, 2021
5. B. La Rosa, R. Capobianco, and D. Nardi. Explainable inference on sequential data via memorytracking. In *Proceedings of the 29th International Joint Conference on Artificial Intelligence (IJCAI)*, 2020
6. F. Riccio, R. Capobianco, and D. Nardi. Guess: Generative modeling of unknown environments and spatial abstraction for robots. In *Proc. of the 19th International Conference on Autonomous Agents and Multiagent Systems (AAMAS)*, 2020
7. M. T. Lazaro, R. Capobianco, and G. Grisetti. Efficient long-term mapping in dynamic environments. In *Proc. of the IEEE/RSJ Int. Conf. on Intelligent Robots and Systems (IROS)*, 2018
8. F. Riccio, R. Capobianco, and D. Nardi. Q-CP: Learning action values for cooperative planning. In *2018 IEEE International Conference on Robotics and Automation (ICRA)*, 2018
9. G. Gemignani, R. Capobianco, E. Bastianelli, D. Bloisi, L. Iocchi, and D. Nardi. Living with robots: Interactive environmental knowledge acquisition. *Robotics and Autonomous Systems (RAS)*, 78:1–16, 2016
10. Wen Sun, R. Capobianco, G. J. Gordon, J. A. Bagnell, and Byron Boots. Learning to smooth with bidirectional predictive state inference machines. In *Proceedings of the 32nd Conference on Uncertainty in Artificial Intelligence (UAI-2016)*, 2016
11. A. Venkatraman, R. Capobianco, L. Pinto, M. Hebert, D. Nardi, and J. A. Bagnell. Improved learning of dynamics models for control. In *The 15th International Symposium on Experimental Robotics (ISER-2016)*, 2016

- E. Bastianelli, D. Bloisi, R. Capobianco, F. Cossu, G. Gemignani, L. Iocchi, and D. Nardi. On-line  
12. semantic mapping. In *Advanced Robotics (ICAR)*, 2013 16th International Conference on, pages 1–6. IEEE, 2013

## INTERNATIONAL EVENTS

### Eventi Internazionali

- 2021 Organizzatore, Workshop on eXplainable AI approaches for debugging and diagnosis, NeurIPS 2021, Remote.
- 2019 Organizzatore, Workshop on Evaluation and Benchmarking of Human-Centered AI Systems, 2019, Milton Keynes, UK.
- 2019 Membro del Comitato Tecnico, SciRoc Challenge 2019, Milton Keynes, UK.
- 2018 Presentatore, 2018 Int. Conf. on Autonomous Agents and Multiagent Systems, AAMAS 2018, Stockholm, Sweden.
- 2017 Docente, The 4th Lucia PhD School on “Artificial Intelligence and Robotics”, Lisbon, Portugal.
- 2017 Docente, The 4th Lucia PhD School on “Artificial Intelligence and Robotics”, Lisbon, Portugal.
- 2016 Presentatore, 2016 IEEE-RAS Int. Conf. on Humanoid Robots, Humanoids 2016, Cancun, Mexico.
- 2016 Presentatore, 15th International Symposium on Experimental Robotics, ISER 2016, Tokyo, Japan.
- 2016 Presentatore, AAI Robotics Fellowship, AAI 2016, Phoenix, AZ, USA.
- 2016 Presentatore, AAI Workshop on Symbiotic Cognitive Systems, AAI 2016, Phoenix, AZ, USA.
- 2015 Invited Speaker, Digital Signal Processing Day, Mexico City, Mexico.
- 2015 Invited Speaker, RoCKIn Workshop, Mexico City, Mexico.
- 2015 Volontario, 2015 Robotics: Science and Systems Conference, RSS 2015, Rome, Italy.
- 2015 Membro del Comitato Locale, RoCKIn Camp 2015, RoCKIn@Work Challenge, Peccioli, Italy.
- 2014 Presentatore, AI\*IA Doctoral Consortium 2014, XIII AI\*IA Symposium on AI, Pisa, Italy.
- 2014 Membro del Comitato Organizzatore, RoCKIn 2014, RoCKIn@Work Challenge, Toulouse, France.
- 2014 Partecipante, RoCKIn 2014, RoCKIn@Work Challenge, Toulouse, France.
- 2014 Presentatore, IAS-13, 13th International Conference on Intelligent Autonomous Systems, Padua, Italy.
- 2014 Partecipante, RoCKIn Camp 2014, RoCKIn@Work Challenge, Rome, Italy.

## ATTIVITÀ D'INSEGNAMENTO

### Attività d'Insegnamento

- II Semestre 2021–2022 - **Docente**, *Seminars in Artificial Intelligence*, Sapienza University of Rome, Italy. M.Sc. in Artificial Intelligence and Robotics
- I Semestre 2020–2021 - **Docente**, *Probabilistic Reasoning & Reinforcement Learning*, Sapienza University of Rome, Italy. M.Sc. in Artificial Intelligence and Robotics

- II Semestre 2019–2020 - **Docente**, *Seminars in Artificial Intelligence*, Sapienza University of Rome, Italy. M.Sc. in Artificial Intelligence and Robotics
- I Semestre 2019–2020 - **Docente**, *Probabilistic Reasoning & Reinforcement Learning*, Sapienza University of Rome, Italy. M.Sc. in Artificial Intelligence and Robotics
- I Semestre 2018–2019 - **Docente**, *Probabilistic Reasoning & Reinforcement Learning*, Sapienza University of Rome, Italy. M.Sc. in Artificial Intelligence and Robotics
- II Semestre 2018–2019 - **Docente**, *Laboratorio di Intelligenza Artificiale e Grafica Interattiva*, Sapienza University of Rome, Italy. B.Eng. Computer Engineering
- II Semestre 2014–2015 - **Teaching Assistant**, *Artificial Intelligence II*, Sapienza University of Rome, Italy.
- I Semestre 2014–2015 - **Teaching Assistant**, *Robot Programming*, Sapienza University of Rome, Italy.
- Spring 2014 Teaching Assistant, *Artificial Intelligence II*, Sapienza University of Rome, Italy. II Semestre 2013–2014 - **Tutor**, *Seminars in Artificial Intelligence and Robotics*, Sapienza University of Rome, Italy.
- Rome, Italy.

*Autorizzo il trattamento dei miei dati personali presenti nel CV ai sensi dell'art. 13 d. lgs. 30 giugno 2003 n. 196 - "Codice in materia di protezione dei dati personali" e dell'art. 13 GDPR 679/16 - "Regolamento europeo sulla protezione dei dati personali".*