



Roberto Capobianco

CV valido ai fini della pubblicazione

ESPERIENZA LAVORATIVA

12/2019 - ATTUALE

Research Scientist

Sony AI

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

Ricercatore a Tempo Determinato (RTD-A)

Sapienza University of Rome

Are: 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

Are: Robotica, Reinforcement Learning, Robot Learning, Deep Learning, Benchmarking di Sistemi Robotici.

Roma, Italia

ATTIVITÀ D'INSEGNAMENTO

Attività d'Insegnamento

- 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.

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:

inglese

Ascolto C2	Lettura C2	Produzione orale C2	Interazione orale C2	Scrittura C2
----------------------	----------------------	-----------------------------------	------------------------------------	------------------------

francese

Ascolto A2	Lettura A2	Produzione orale A2	Interazione orale A2	Scrittura A1
----------------------	----------------------	-----------------------------------	------------------------------------	------------------------

ONORIFICENZE E RICONOSCIMENTI

Onorificenze e Premi

- 2016 AAAI Robotics Fellowship, AAAI, 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.

COMPETENZE ORGANIZZATIVE

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;

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

PUBLICATIONS

● Pubblicazioni Selezionate

1. 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.
2. F. Riccio, R. Capobianco, and D. Nardi. Loop: Iterative learning for optimistic planning on robots. *Robotics and Autonomous Systems*, 136:103693, 2021
3. 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
4. V. Kompella, R. Capobianco, S. Jong, J. Browne, S. Fox, L. Meyers, P. Wurman, and P. Stone. Reinforcement learning for optimization of COVID-19 mitigation policies. In *AAAI Fall Symposium on AI for Social Good*, November 2020
5. B. La Rosa, R. Capobianco, and D. Nardi. Explainable inference on sequential data via memory-tracking. 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. R. Capobianco, F. Riccio, and D. Nardi. Hi-val: Iterative learning of hierarchical value functions for policy generation. In *Intelligent Autonomous Systems 15*, 2018
8. 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
9. 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
10. 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
11. 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
12. 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
13. R. Capobianco, J. Serafin, J. Dichtl, G. Grisetti, L. Iocchi, and D. Nardi. A proposal for semantic map representation and evaluation. In *Mobile Robots (ECMR), 2015 European Conference on*, pages 1–6. IEEE, 2015
14. E. Bastianelli, D. Bloisi, R. Capobianco, F. Cossu, G. Gemignani, L. Iocchi, and D. Nardi. On-line 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.

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".

Roma