Dr. Agnese Chiatti's CV

Affiliation & Contacts

Artificial Intelligence and Robotics Lab (AIRLab)
Department of Electronics, Information, and Bioengineering (DEIB)
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Professional experience

- [June 2023 Present] Postdoctoral Researcher at POLIMI (Italy)
- [Oct 2022 June 2023] L'Oréal-UNESCO Visiting Fellow at POLIMI (Italy)
- [June 2018 Mar 2023] Research Assistant at The Open University (UK)
- [Aug 2016 May 2018] Research and Teaching Assistant at Penn State University (USA)
- [June 2015 June 2016] Employee in the R&D Innovation Unit at Hera Group (Italy)
- [Feb 2015 May 2015] Intern at CRIF Business Analyst Decision Solutions team (Italy)

Education

- [Oct 2019 Sep 2022] PhD, The Open University (UK). Awarded on 14/12/2022 Thesis: "Visually Intelligent Agents: Improving Sensemaking in Service Robotics" Supervisors: Prof. Enrico Motta, Dr. Enrico Daga
- [Aug 2016 Aug 2019] MS in Information Sciences and Technology, Penn State (USA)
- [Nov 2012 Sep 2014] MS in Industrial Engineering and Management, POLITO (Italy)

Research grants

[Apr 2024] <u>Seal of Excellence for the MSCA Fellowship</u>. Grant proposal "ReFiNe: Redefining Field robot deployment through Neuro-symbolic visual sensemaking". [Oct 2022- May 2023] <u>L'Oréal-UNESCO for Women in Science Fellowship</u> (20k€). Grant proposal on Neuro-symbolic AI methods to improve robots' visual perception for agricultural applications.

Selected Publications

- Chiatti, A., Bertoglio, R., Catalano, N., Gatti, M., and Matteucci, M. <u>Surgical fine-tuning for Grape Bunch Segmentation under Visual Domain Shifts</u>. In *Proceedings of the European Conference on Mobile Robots* (ECMR23).
- Chiatti, A., Bardaro, G., Matteucci, M., and Motta, E. (2023) <u>Visual Model Building for Robot Sensemaking: Perspectives, Challenges, and Opportunities</u>. *Bridge Session on AI and Robotics of the thirty-seventh AAAI conference on Artificial Intelligence* (AAAI-23).
- Chiatti, A., and Daga, E. (2022) <u>Neuro-symbolic learning for dealing with sparsity in cultural heritage image archives: an empirical journey</u>. In *Proceedings of the 21st International Semantic Web Conference Workshop on Deep Learning for Knowledge Graphs (DL4KG)*.
- Chiatti, A., Bardaro, G., Motta, E., and Daga, E. (2022) <u>A Spatial Reasoning Framework for Commonsense Reasoning in Visually Intelligent Agents</u>. In *Proceedings of the 8th International Workshop on Artificial Intelligence and Cognition (AIC)*.
- Chiatti, A., Motta, E., and Daga, E. (2022) <u>Robots with Commonsense: Improving Object Recognition through Size and Spatial Awareness.</u> In *Proceedings of the 2022 AAAI Spring Symposium on Machine Learning and Knowledge Engineering for Hybrid Intelligence.*
- Chiatti, A., Motta, E., and Daga, E. (2020) <u>Towards a Framework for Visual Intelligence in Service Robotics: Epistemic Requirements and Gap Analysis</u>. In *Proceedings of the 17th International Conference on Principles of Knowledge Representation and Reasoning (KR)*.

Academic service

<u>Organizing Committee:</u> DEEPFIELD workshop on "Deploying mobile robots in unconstrained real-world environments" at ECMR 2023

Assistant Chair: the 2022 KR Special Session on KR and Robotics

<u>PC member:</u> Semantics2024, ESWC2024 workshop on Actionable Knowledge Representation and Reasoning for Robots, KR conference (2022, 2023), ISWC 2023 Workshop on Deep Learning for Knowledge Graphs (DL4KG), ISWC 2023 Doctoral Consortium.

Other activities

- [Mar 2023 Present] <u>Supervised four Master Students</u> at AIRLab POLIMI.
- [ongoing] <u>Instructor of training events</u> for STEM school teachers and students in Italy.
- <u>Teaching modules</u> Teaching Assistant for the Penn state MS/PhD course on Information Retrieval and Search Engines; the Penn State BSc course on Organization of Data.
- Finalist for the 2022 John McCarthy award for Italian researchers in Al under 35.
- <u>Co-led a team of MS students at the 2021 Smart Cities Robotics Challenge</u> 1st place on the task of autonomously controlling a humanoid robot to manoeuvre a shopping cart.
- [2020-2022] Member of the KMi Athena Swan team, promoting gender equality, diversity, and inclusion at the Knowledge Media Institute (KMi).
 - [2021-2022] <u>Co-host of the "KMi Maven of the Month"</u>, a series of virtual Q&A sessions with AI experts on broad socio-technical topics (AI & Ethics, Digital Misinformation, and others).