Alfredo Reichlin

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Ph.D. candidate in Computer Science at KTH specializing in deep learning and reinforcement learning, with experience in industrial research and multiple publications in top ML and robotics venues.

EDUCATION

KTH Royal Institute of Technology — Stockholm, Sweden
Ph.D. in Computer Science (Deep Learning, Reinforcement Learning, Robotics). 2021 - Present
Supervisor: Prof. Danica Kragic.
Thesis: *"Interactive Representation Learning"*.

KTH Royal Institute of Technology 2017 - 2020
M.Sc. in Machine Learning.
Thesis: *"State Representation Learning for Robotics"*.

Politecnico di Torino — Torino, Italy
B.Sc. in Computer Engineering. 2013 - 2017

WORK EXPERIENCE

Sony AI — Remote
Research Intern Summer 2024, Winter 2025

- Research and development of Reinforcement Learning algorithms for the Gran Turismo Sophy Team.

KTH Royal Institute of Technology — Stockholm, Sweden
Research Engineer 2020 - 2021

- Research and development of Deep Learning models for the analysis of EEG signals.

SAN srl — Torino, Italy
Software Developer Intern 2016

- Study and research on IBM Bluemix and the Watson software for a distributed web application.

TEACHING EXPERIENCE

KTH Royal Institute of Technology — Stockholm, Sweden
Teaching Assistant 2021 - Present

- Computer Vision (Master Level), helped the students with the labs and graded the assignments.
- Deep Learning for Data Science (Master Level), helped the students with the labs and graded the assignments.

Machine Learning Reading Group Organizer 2021 - Present

- Co-organizer of the Ph.D. level reading group of the university on Machine Learning topics.

PUBLICATIONS

- Alfredo Reichlin, Miguel Vasco, Danica Kragic, Walking on the Fiber: A Simple Geometric Approximation for Bayesian Neural Networks, *Transactions on Machine Learning Research (TMLR), 2025*.
- Alfredo Reichlin, Gustaf Tegnér, Miguel Vasco, Hang Yin, Mårten Björkman, Danica Kragic, Reducing Variance in Meta-Learning via Laplace Approximation for Regression Tasks, *Transactions on Machine Learning Research (TMLR), 2024*.
- Alfredo Reichlin, Giovanni Luca Marchetti, Hang Yin, Anastasiia Varava, Danica Kragic, Learning Geometric Representations of Objects via Interaction, *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECML-PKDD), 2023*.
- Alberta Longhini, Marco Moletta, Alfredo Reichlin, Michael C Welle, David Held, Zackory Erickson, Danica Kragic, Edo-net: Learning elastic properties of deformable objects from graph dynamics, *IEEE International Conference on Robotics and Automation (ICRA), 2023*.
- Alberta Longhini, Marco Moletta, Alfredo Reichlin, Michael C Welle, Alexander Kravberg, Yufei Wang, David Held, Zackory Erickson, Danica Kragic, Elastic context: Encoding elasticity for data-driven models of textiles, *IEEE International Conference on Robotics and Automation (ICRA), 2023*.
- Nona Rajabi, Charles Chernik, Alfredo Reichlin, Farzaneh Taleb, Miguel Vasco, Ali Ghadirzadeh, Mårten Björkman, Danica Kragic, Mental Face Image Retrieval Based on a Closed-Loop Brain-Computer Interface, *International Conference on Human-Computer Interaction, 2023*.
- Alfredo Reichlin, Giovanni Luca Marchetti, Hang Yin, Ali Ghadirzadeh, Danica Kragic, Back to the manifold: Recovering from out-of-distribution states, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2022*.

- Gustaf Tegnér, Alfredo Reichlin, Hang Yin, Mårten Björkman, Danica Kragic, On the Subspace Structure of Gradient-Based Meta-Learning, *First Workshop of Pre-training: Perspectives, Pitfalls, and Paths Forward at ICML 2022*.
- Robert Gieselmann, Alberta Longhini, Alfredo Reichlin, Danica Kragic, Florian T. Pokorny, DLO@Scale - A Large-Scale Meta Dataset for Learning Non-Rigid Object Pushing Dynamics, *Workshop on Physical Reasoning and Inductive Biases for the Real World, NeurIPS, 2021*.

OTHER PROJECTS

Robotics Team Competition Winner   Stockholm, Sweden
Project Link: `https://github.com/reichlin/RAS`   2018

- Winner team of the university competition on building and programming an autonomous robot for maze exploration and object retrieval.

Video game on FPGA   Torino, Italy
Project Link: `https://github.com/reichlin/FPGA-Game`   2015

- Implemented a video game in VHDL to run on an FPGA with a VGA output.

SKILLS

- **Programming:** Python, C/C++, Java, Javascript, MATLAB.
- **Machine Learning Libraries:** TensorFlow, PyTorch.
- **Hardware Programming:** ROS, Xilinx, VHDL.
- **Languages:** Italian (native), English (professional).