Alfredo Reichlin

Stockholm, Sweden — alfrei@kth.se — +39 3339611321 — https://github.com/reichlin

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 for Control"*.

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 — 2024

- 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

- Reichlin, Alfredo, et al. "Reducing Variance in Meta-Learning via Laplace Approximation for Regression Tasks." Transactions on Machine Learning Research.
- Alfredo Reichlin, Giovanni Luca Marchetti, Hang Yin, Anastasiia Varava, Danica Kragic (2023), Learning Geometric Representations of Objects via Interaction, *Joint European Conference on Machine Learning and Knowledge Discovery in Databases (ECML-PKDD)*.
- Alberta Longhini, Marco Moletta, Alfredo Reichlin, Michael C Welle, David Held, Zackory Erickson, Danica Kragic (2023), Edo-net: Learning elastic properties of deformable objects from graph dynamics, *IEEE International Conference on Robotics and Automation (ICRA)*.
- Alberta Longhini, Marco Moletta, Alfredo Reichlin, Michael C Welle, Alexander Kravberg, Yufei Wang, David Held, Zackory Erickson, Danica Kragic (2023), Elastic context: Encoding elasticity for data-driven models of textiles, *IEEE International Conference on Robotics and Automation (ICRA)*.
- Nona Rajabi, Charles Chernik, Alfredo Reichlin, Farzaneh Taleb, Miguel Vasco, Ali Ghadirzadeh, Mårten Björkman, Danica Kragic (2023), Mental Face Image Retrieval Based on a Closed-Loop Brain-Computer Interface, *International Conference on Human-Computer Interaction*.
- Alfredo Reichlin, Giovanni Luca Marchetti, Hang Yin, Ali Ghadirzadeh, Danica Kragic (2022), Back to the manifold: Recovering from out-of-distribution states, *IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS)*.
- Gustaf Tegnér, Alfredo Reichlin, Hang Yin, Mårten Björkman, Danica Kragic (2022), 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 (2021), 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).