

Federico Landi

Deep Learning and Computer Vision Engineer

Work Experience

May 2022 – Present **Deep Learning Engineer, Senior**, *Huawei Technologies*, Amsterdam Research Center.

Education

2022 **Ph.D. Student**, *University of Modena and Reggio Emilia*.

Advisor: Prof. Rita Cucchiara

I got my Ph.D. in Computer Vision and Deep Learning at AlmageLab. My research lied at the intersection of computer vision, natural language processing, and robotics, in the amazing field of Embodied AI. In particular, my research efforts mainly focused on Vision-and-Language Navigation.

Thesis title: *Perception, Reasoning, Action: the new frontier of Embodied AI*

2018 **Master Degree in Computer Engineering**, *University of Modena and Reggio Emilia*.

Final mark: 110/110 *cum laude*

Thesis title: Exploring Locality in Anomaly Detection

Advisors: Prof. Rita Cucchiara, Prof. Cees Snoek

Awards: Best Master Thesis at UNIMORE, Science and Technology, 2018

April– **Visiting Student**, *University of Amsterdam (UVA)*, Amsterdam, The Netherlands.

Sept. 2018 During my visit at UvA, I focused on Anomaly Detection in surveillance videos under the supervision of Prof. Cees Snoek.

2016 **Bachelor Degree in Computer Engineering**, *University of Modena and Reggio Emilia*.

Skills

Research Vision and other Modalities, Neural Networks, Deep Learning, Machine Learning
Programming Python, Pytorch, Tensorflow, Keras, Git.

Teaching Activities

2020–2021 Computer Architecture – Prof. Rita Cucchiara, Prof. Simone Calderara

2020 Machine Learning and Deep Learning – IFOA

2020 Deep Learning – Nuova Didactica

Languages

Italian **Mothertongue**

English **C1**

Conversationally fluent

French **B2**

Good knowledge

Schools, Courses

2020 Advanced Course on Data Science and Machine Learning (ACDL), *Remote*, certificate

2019 International Computer Vision Summer School (ICVSS), *Scicli (RG), Italy*, certificate

Publications

- 2022 **Dress Code: High-Resolution Multi-Category Virtual Try-On.**
Davide Morelli, Matteo Fincato, Marcella Cornia, Federico Landi, Fabio Cesari, Rita Cucchiara
European Conference on Computer Vision (ECCV), 2022
- 2022 **Spot the Difference: A Novel Task for Embodied Agents in Changing Environments.**
Federico Landi, Roberto Bigazzi, Marcella Cornia, Silvia Cascianelli, Lorenzo Baraldi, Rita Cucchiara
International Conference on Pattern Recognition (ICPR), 2022
- 2021 **Embodied Navigation at the Art Gallery.**
Roberto Bigazzi, Federico Landi, Silvia Cascianelli, Marcella Cornia, Lorenzo Baraldi, Rita Cucchiara
International Conference on Image Analysis and Processing (ICIAP), 2021
- 2021 **Focus on Impact: Indoor Exploration with Intrinsic Motivation.**
Roberto Bigazzi, Federico Landi, Silvia Cascianelli, Lorenzo Baraldi, Marcella Cornia, Rita Cucchiara
IEEE Robotics and Automation Letters (RA-L)
- 2021 **Working Memory Connections for LSTM.**
Federico Landi, Lorenzo Baraldi, Marcella Cornia, Rita Cucchiara
Neural Networks (NEUNET)
- 2021 **Multimodal Attention Networks for Low-Level Vision-and-Language Navigation.**
Federico Landi, Lorenzo Baraldi, Marcella Cornia, Massimiliano Corsini, Rita Cucchiara
Computer Vision and Image Understanding (CVIU)
- 2021 **Out of the Box: Embodied Navigation in the Real World.**
Roberto Bigazzi, Federico Landi, Marcella Cornia, Silvia Cascianelli, Lorenzo Baraldi, Rita Cucchiara
International Conference on Computer Analysis of Images and Patterns (CAIP), 2021
- 2021 **Transform, Warp, and Dress: a new transformation-guided model for virtual try-on.**
Matteo Fincato, Marcella Cornia, Federico Landi, Fabio Cesari, Rita Cucchiara
ACM Transactions on Multimedia Computing, Communications, and Applications (TOMM)
- 2020 **VITON-GT: an image-based virtual try-on model with geometric transformations.**
Matteo Fincato, Federico Landi, Marcella Cornia, Fabio Cesari, Rita Cucchiara
International Conference on Pattern Recognition (ICPR), 2020
- 2020 **Explore and Explain: Self-supervised Navigation and Recounting.**
Roberto Bigazzi, Federico Landi, Marcella Cornia, Silvia Cascianelli, Lorenzo Baraldi, Rita Cucchiara
International Conference on Pattern Recognition (ICPR), 2020
- 2019 **Embodied Vision-and-Language Navigation with Dynamic Convolutional Filters.**
Federico Landi, Lorenzo Baraldi, Massimiliano Corsini, Rita Cucchiara
British Machine Vision Conference (BMVC), 2019
- 2019 **Anomaly locality in video surveillance.**
Federico Landi, Cees Snoek, Rita Cucchiara
ArXiv