Federico Landi

Ph.D. Candidate in Computer Vision and Deep Learning

Work Experience

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

April–Sept. 2018 **Visiting Student**, *University of Amsterdam (UVA)*, Amsterdam, The Netherlands.
During my visit at UvA, I focused on Anomaly Detection in surveillance videos under the supervision of Prof. Cees Snoek.

Education

2018–2022 **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 AImageLab. 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.

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

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

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Publications

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