

# Andrea Palazzi

✉ [andrea.palazzi@unimore.it](mailto:andrea.palazzi@unimore.it)

☎ +39 347 318 5472

🌐 [andreapalazzi.info](http://andreapalazzi.info)

## SKILLS

Topics: Computer Vision, Deep Learning, Machine Learning.  
Languages: Python, Matlab, C++, C. Git versioning.  
Libraries: OpenCV, Open3D, PyTorch, TensorFlow, Keras, Theano.

## EDUCATION

11/2016 – 03/2020 **PhD Student in Computer Vision**, University of Modena and Reggio Emilia  
Supervisor: Prof. Rita Cucchiara.  
Main research topics:  
driver's gaze prediction, image and video saliency, synthetic data,  
differentiable rendering, object pose estimation, image generation.

2012-2015 **MSc in Computer Engineering**, University of Modena and Reggio Emilia  
Mark: 110 / 110 cum laude.  
Thesis title: Automatic identification of emerging trends via text data mining.

2009-2012 **BSc in Computer Engineering**, University of Modena and Reggio Emilia  
Thesis title: Design and engineering of an Arduino-controlled robotic arm.

## WORK EXPERIENCE

05/2018 – 08/2018 **Applied Scientist Intern**, Amazon, Berlin  
I joined the computer vision team where I conceived and worked on an exploratory research project on weakly-supervised instance level segmentation.

09/2015 – 10/2016 **Research Fellow**, University of Modena and Reggio Emilia  
Collaborating with the department of human sciences, I designed and implemented a video analysis pipeline to detect the presence of hidden biases in social interactions from people's nonverbal behaviors.

01/2015 – 09/2015 **Software Developer in R&D (NLP)**, Expert System, Modena  
As part of my thesis project, I built a software prototype to automatically identify changes and emerging trends in the use of words over time through text data mining on web-scraped documents corpora.

## TEACHING ACTIVITIES (at University of Modena and Reggio Emilia)

2019 **Neural network computing, AI and machine learning for automotive**, laboratory lecturer.

2017 **Deep Learning**, course lecturer in Master of Visual Computing [[material](#)].  
**Computer Vision**, laboratory lecturer.  
**Machine Learning and Pattern Recognition**, laboratory lecturer.

2016 **Computer Vision**, laboratory lecturer.  
**Machine Learning and Pattern Recognition**, laboratory lecturer.

## LANGUAGES

Italian:	native	German:	basic
English:	proficient	French:	basic

## OTHER PROJECTS

- 2016 – ongoing      Open-sourcing software and teaching material on [GitHub](#) and [YouTube](#).
- 2016                    Engineering and development of a face detection and recognition system embedded on Raspberry Pi 2 for Nortech Engineering Srl, Bologna.

## PRESS

- 2016                    International science magazine New Scientist, dedicated a [cover article](#) to my research about automatic recognition of non-verbal behaviours.

## SELECTED PUBLICATIONS

(complete list is on [scholar](#))

- 2019                    **Warp and Learn: Novel Views Generation for Vehicles and Other Objects**  
Palazzi, A., Bergamini, L., Calderara, S. & Cucchiara, R.  
([pre-print paper](#), [project page](#))
- Segmentation Guided Scoring of Pathological Lesions in Swines Through Convolutional Neural Networks** Bergamini, L., Trachtman, Abigail Rose, Palazzi, A. et al. In International Conference on Image Analysis and Processing (ICIAP) 2019 ([project page](#))
- 2018                    **End-to-end 6-DoF Object Pose Estimation through Differentiable Rasterization.** Palazzi, A., Bergamini, L., Calderara, S. & Cucchiara, R. In ECCVW. ([project page](#))
- Learning to Detect and Track Visible and Occluded Body Joints in a Virtual World** Fabbri, M., Lanzi, F., Calderara, S. Palazzi, A., Vezzani, R., & Cucchiara, R. European Conference of Computer Vision (ECCV). ([project page](#))
- 2017                    **Predicting the Driver's Focus of Attention: the DR (eye) VE Project**  
Palazzi, A., Abati, D., Calderara, S., Solera, F., & Cucchiara, R.. Transactions on Pattern Analysis and Machine Intelligence (TPAMI). ([project page](#), [code](#))
- Learning to Map Vehicles into Bird's Eye View**  
Palazzi, A., Borghi, G., Abati, D., Calderara, S., & Cucchiara, R., In ICIAP 2017 (Oral Presentation, Special Mention Best Paper Award) ([project page](#), [code](#))
- Learning Where to Attend Like a Human Driver**  
Palazzi, A., Solera, F., Calderara, S., Alletto, S., & Cucchiara, R. (2017, June). In Intelligent Vehicles Symposium (IV), 2017 IEEE (pp. 920-925). IEEE.
- 2016                    **Spotting prejudice with nonverbal behaviours**  
Palazzi, A., Calderara, S., Biccocchi, N., Vezzali, L., di Bernardo, G. A., Zambonelli, F., & Cucchiara, R. In Proceedings of the 2016 ACM Ubicomp. (Oral Presentation)
- Dr (Eye)Ve: A dataset for attention-based tasks with applications to autonomous and assisted driving** Alletto, S., Palazzi, A., Solera, F., Calderara, S., & Cucchiara, R. (2016). In Proceedings of IEEE CVPRW. ([project page](#), [code](#))

## CERTIFICATES, COURSES, SCHOOLS ATTENDED

- 2017                    Certificate of *Self-Driving Car Engineer Nanodegree* (Udacity).
- 2016                    *RegML 2016*, summer school on Regularization Methods for Machine Learning held by Lorenzo Rosasco at IIT (Genoa)
- 2015                    Certificate of *Machine Learning Course* (Coursera)
- Passed government exam and licensed as a professional engineer