

Andrea Palazzi

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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 - ongoing **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
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:	mother tongue	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 **Semi-parametric Object Synthesis**
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., Bicocchi, 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