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:	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   **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