

Davide Abati

Computer Vision Ph.D. student

Skills

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| Research | ○ Computer Vision | ○ Computer Science |
| | ○ Machine Learning | ○ Algorithms |
| | ○ Neural Networks | ○ Deep Learning |
| Program- ming | ○ Python | ○ Git |
| | ○ Tensorflow | ○ Pytorch |
| | ○ Keras | ○ Theano |

Work Experience

- June-Sept. 2019 **Engineering Intern**, *Qualcomm AI Research Netherlands*.
I was an intern at Qualcomm Research in Amsterdam.
- 2016 **Research Fellow**, *University of Modena and Reggio Emilia*.
I was selected through a competitive process to design and implement computer vision solutions for automotive applications. After two months I resigned in order to accept the Ph.D. scholarship I won.
- 2015 **Web Development Intern**, *Ot Consulting*, Reggio Emilia.

Education

- March 2020 (expected) **Ph.D. Student**, *University of Modena and Reggio Emilia*.
Advisor: Prof. Rita Cucchiara
I am currently a computer vision Ph.D. student at AimageLab. In my first year I focused on automotive oriented research, now published on two transactions journals. In the second year I explored the employment of deep generative models for anomaly detection.
- 2016 **Postgraduate Master in Visual Computing and Multimedia Technologies**, *University of Modena and Reggio Emilia*.
I won one of the 12 scholarships available for the first edition of the school. I worked in several group projects addressing the management of multimedia data and its elaboration, analysis and transmission.
- 2015 **Master's degree in Computer Engineering**, *University of Modena and Reggio Emilia*.
Final mark: 110/110 cum laude
Thesis title: Search system on images and 3D details for cultural heritage
Advisors: Prof. Rita Cucchiara, Ing. Giuseppe Serra
Awards: Unimore Degree Award 2013/2014
- 2012 **Bachelor's Degree in Computer Engineering**, *University of Modena and Reggio Emilia*.

Languages

Italian Native Speaker
English B2

good working knowledge

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🐙 github.com/DavideA

Publications

- 2019 **Latent Space Autoregression for Novelty Detection**
D. Abati, A. Porrello, S. Calderara, R. Cucchiara
IEEE International Conference on Computer Vision and Pattern Recognition
- 2019 **Classifying Signals on Irregular Domains via Convolutional Cluster Pooling**
A. Porrello, D. Abati, S. Calderara, R. Cucchiara
International Conference on Artificial Intelligence and Statistics
- 2018 **Self-Supervised Optical Flow Estimation by Projective Bootstrap**
S. Alletto, D. Abati, S. Calderara, R. Cucchiara, L. Rigazio
IEEE Transactions on Intelligent Transportation Systems
- 2018 **Predicting the Driver's Focus of Attention: the DR(eye)VE Project**
A. Palazzi, D. Abati, S. Calderara, F. Solera, R. Cucchiara
IEEE Transactions on Pattern Analysis and Machine Intelligence
- 2017 **Attentive Models in Vision: Computing Saliency Maps in the Deep Learning Era**
M. Cornia, D. Abati, L. Baraldi, A. Palazzi, S. Calderara, R. Cucchiara
16th International Conference of the Italian Association for Artificial Intelligence
- 2017 **Learning to map vehicles into bird's eye view**
A. Palazzi, G. Borghi, D. Abati, S. Calderara, R. Cucchiara
19th International Conference on Image Analysis and Processing
Best Paper Honorable Mention
- 2016 **Exploring Architectural Details Through a Wearable Egocentric Vision Device**
S. Alletto, D. Abati, G. Serra and R. Cucchiara
Sensors special issue "Sensors for Entertainment"
- 2015 **Wearable vision for Retrieving architectural details in augmented tourist experiences**
S. Alletto, D. Abati, G. Serra and R. Cucchiara
International Conference on Intelligent Technologies for Interactive Entertainment
Best Paper Award

Teaching Activities

- 2018 AI-DLDA 2018, *International Summer School on Artificial Intelligence*, Laboratory lecturer - Predicting human eye fixations.
- 2018 Machine Learning and Deep Learning, *Prof. Simone Calderara*, Laboratory Lecturer.
- 2017 Computer Vision, *Prof. Rita Cucchiara*, Laboratory lecturer.
- 2017 Pattern Recognition and Machine Learning, *Prof. Simone Calderara*, Laboratory lecturer.
- 2017 Pattern Recognition and Machine Learning - MuMeT 2017, *Prof. Simone Calderara*, Laboratory lecturer.

Schools, Courses, Certificates

REGML 2018, *Genova (GE), Italy*, [certificate](#).

ICVSS 2017, *Scicli (RG), Italy*, [certificate](#).

CIS Spring Camp 2016, *Queen Mary University of London*, [website](#).

Probabilistic Graphical Models: Representation, *Stanford University on Coursera*, [certificate](#).

Probabilistic Graphical Models: Inference, *Stanford University on Coursera*, [certificate](#).

Probabilistic Graphical Models: Learning, *Stanford University on Coursera*, [certificate](#).

Machine Learning, *Stanford University on Coursera*, [certificate](#).

Introduction to Probability, *Massachusetts Institute of Technology on edX*, [certificate](#).

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