

Davide Abati

Computer Vision and Machine Learning Researcher

Work Experience

- since June 2020 **Engineer, Senior**, *Qualcomm AI Research Netherlands*.
- April-May 2020 **Deep Learning consultant**, *Deep Vision Consulting*.
- June-Sept. 2019 **Engineering Intern**, *Qualcomm AI Research Netherlands*.
- 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

- 2020 **Ph.D. Student**, *University of Modena and Reggio Emilia*.
Advisor: Prof. Rita Cucchiara
I got my Ph.D. in computer vision at AimageLab. In my first year My thesis is about attention prediction applied to human drivers and 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

Publications

- 2021 **Efficient Video Super Resolution by Gated Local Self Attention**
D. Abati, A. Ghodrati, A. Habibian
British Machine Vision Conference (*BMVC 21*)
- 2021 **Skip-Convolutions for Efficient Video Processing**
A. Habibian, D. Abati, T. Cohen, B. E. Bejnordi
IEEE International Conference on Computer Vision and Pattern Recognition (*CVPR 21*)

- 2020 **Dark Experience for General Continual Learning**
P. Buzzega, M. Boschini, A. Porrello, D. Abati, S. Calderara
Neural Information Processing Systems (*NeurIPS 20*)
- 2020 **Conditional Channel Gated Networks for Task-Aware Continual Learning**
D. Abati, J. Tomczak, T. Blankevoort, S. Calderara, R. Cucchiara, B. E. Bejnordi
IEEE International Conference on Computer Vision and Pattern Recognition (*CVPR 20, oral*)
- 2019 **Latent Space Autoregression for Novelty Detection**
D. Abati, A. Porrello, S. Calderara, R. Cucchiara
IEEE International Conference on Computer Vision and Pattern Recognition (*CVPR 19*)
- 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 (*AISTATS 2019*)
- 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 **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](#).