Davide Abati

Computer Vision and Machine Learning Researcher

▬▬ Work Experience

since June 2020	**Machine Learning Researcher**, *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*.
2015	**Web Development Intern**, *Ot Consulting*, Reggio Emilia.

▬▬ Education

2020	**Ph.D. Student**, *University of Modena and Reggio Emilia*.
	Thesis title: Identification of Anomalies in Driver Attention and People Behavior
	Advisor: Prof. Rita Cucchiara
2016	**Postgraduate Master in Visual Computing and Multimedia Technologies**, *University of Modena and Reggio Emilia*.
2015	**Master's degree in Computer Engineering**, *University of Modena and Reggio Emilia*.
	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*
Dutch	A2	

▬▬ Publications (selected)

2024	**Object-Centric Diffusion for Efficient Video Editing**
	Kumara Kahatapitiya, Adil Karjauv, Davide Abati, Fatih Porikli, Yuki M. Asano, Amirhossein Habibian
	European Conference on Computer Vision *(ECCV 24)*
2023	**ResQ: Residual Quantization for Video Perception**
	Davide Abati, Haitam Ben Yahia, Markus Nagel, Amirhossein Habibian
	International Conference on Computer Vision *(ICCV 23)*

2022	**Region-of-Interest Based Neural Video Compression**
	Yura Perugachi Diaz, Guillaume Sautière, Davide Abati, Yang Yang, Amirhossein Habibian, Taco Cohen
	British Machine Vision Conference *(BMVC 22, oral)*
2022	**Delta Distillation for Efficient Video Processing**
	Amirhossein Habibian, Haitam Ben Yahia, Davide Abati, Efstratios Gavves, Fatih Porikli
	European Conference on Computer Vision *(ECCV 22)*
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)*
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 (TPAMI)

──── (Past) Reviewing Service

Journals IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), IEEE Transactions on Neural Networks and Learning Systems (TNNLS), IEEE Transactions on Multimedia (TMM), IEEE Transactions on Intelligent Transportation Systems (TITS), Neural Networks (NEUNET), Pattern Recognition Letters (PRL) .

Conferences IEEE Conference on Computer Vision and Pattern Recognition (CVPR), IEEE International Conference on Computer Vision (ICCV), Neural Information Processing Systems (NeurIPS), International Conference on Representation Learning (ICLR), International Conference on Machine Learning (ICML), International Joint Conferences on Artificial Intelligence (IJCAI) .

──── (Past) 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.