Emanuele Sansone

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Summary

A specialised engineer in the field of machine learning and passionate about work making contribution towards general artificial intelligence. My research focuses on understanding the principles enabling sample efficient and robust learning, working mainly on unsupervised and representation learning.

Along with artificial intelligence and research, I share a passion for the world of sport. I am an experienced ski instructor with international ski racing background. Since 2007, I've been coaching several local Italian racing ski teams and hold several ski instructor courses. In 2011, I've obtained the diploma of ski master instructor, the highest professional Italian degree in alpine skiing, which allows me to train and coach aspiring future skiing instructors.

Work Professional Experience

2018-to date	**Research Scientist**
	Huawei Technologies R&D, London, UK
	Working in the area of deep generative models and causal inference.
2018-to date	**Reviewer**
	Serving as a reviewer for international journals in the area of machine learning and signal processing, such as IEEE Transactions of Neural Networks and Learning Systems and IEEE Transactions on Image Processing.

Academic Experience

2016	**Teaching Assistant, Computer Vision (Code 140266)**
	M.Sc. in Telecommunications Engineering, University of Trento, Italy
	Machine Learning for Computer Vision (introduction to statistical learning theory and neural networks).
2015	**Teaching Assistant, Multimedia Networking (Code 140151)**
	M.Sc. in Telecommunications Engineering, University of Trento, Italy
	Principles of video compression/coding (useful for transmission/storage of video files).
2015-2016	**Research Intern**
	LAMDA group, Nanjing University, China
	Advisor: Prof. Zhi-Hua Zhou.
	I've studied semi-supervised learning as well as positive unlabeled learning.

Sport Professional Experience

2011-to date	**Ski master instructor**
	Italy
	Holding several professional education and training courses for ski instructors and candidate ski instructors. This is the highest professional degree in alpine skiing (the total number of ski master instructors in Italy is around 200).
2007-2017	**Ski coach**
	Italy
	Coach of young athletes (6-20 years old) in several racing ski teams: Ski Team Sopramonte (2007/2008), Sci Club Padova (2008/2009), Sci Club Panarotta (2009-2011), Ski Team Paganella (2013/2014), Campiglio Ski Team (2016/2017).
2002-2007	**Ski athlete**
	Italy
	See a sample list of records.

Education

2013-2018 | **Ph.D.**
ICT doctoral school, University of Trento, Italy
Thesis: "Towards Uncovering the True Use of Unlabeled Data in Machine Learning"
Advisor: Prof. Francesco G.B. De Natale.
Dissertation in multiple areas of machine learning, including semi-supervised, positive unlabeled and unsupervised representation learning.

2011-2012 | **M.Sc. in Telecommunications Engineering**
University of Trento, Italy
Thesis: "Multimodal Photo Galleries Synchronization"
Advisor: Prof. Nicola Conci, Giulia Boato.
110/110 *summa cum laude* | Gpa: 28.82/30
Computer vision application for automatic synchronization of photo galleries from multiple users attending the same event (C++ language).

2008-2010 | **B.Sc. in Telecommunications Engineering**
University of Trento, Italy
Thesis: "Master P-NET protocol implementation on PIC 32 architecture"
Advisor: Prof. Dario Petri, Eng. Michele Corrà.
Programming a master device in a network composed by different sensors and actuators. Implementation of P-NET protocol over a PIC 32 microcontroller (C language).

Awards and Certificates

2016 | **Academic hardware grant award**
Hong Kong, China
Provision of a NVIDIA Titan X GPU
Organization: NVIDIA corporation

2015 | **Machine Learning Summer School**
Austin, USA
Certificate of attendance
Organization: University of Texas at Austin

2012 | **Merit award**
Trento, Italy
Award assigned to distinguished students
Organization: University of Trento

2011 | **Ski master instructor**
Milan, Italy
Certificate
Organization: FISI, CoScuMa

2011 | **Ski coach (3° level)**
Milan, Italy
Certificate
Organization: FISI, STF

2007 | **Ski instructor**
Trento, Italy
Certificate

Organization: PAT

Publications

2020	**Coulomb Autoencoders** E. Sansone, H. T. Ali, S. Jiacheng To appear in European Conference on Artificial Intelligence (ECAI)
2018	**Towards Uncovering the True Use of Unlabeled Data in Machine Learning** E. Sansone PhD Thesis
2018	**Efficient Training for Positive Unlabeled Learning** E. Sansone, F.G.B De Natale, Z.H. Zhou IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI)
2017	**Training Feedforward Neural Networks with Standard Logistic Activations is Feasible** E. Sansone, F.G.B. De Natale arXiv pre-print
2017	**Automatic Synchronization of Multi-User Photo Galleries** E. Sansone, K. Apostolidis, N. Conci, G. Boato, V. Mezaris, F.G.B. De Natale IEEE Transactions on Multimedia (TMM)
2016	**Classtering: Joint Classification and Clustering with Mixture of Factor Analysers** E. Sansone, A. Passerini, F.G.B. De Natale European Conference on Artificial Intelligence (ECAI)
2014	**Synchronizing Multi-User Photo Galleries with MRF** E. Sansone, G. Boato, MS. Dao MediaEval Workshop
2013	**Event Clustering and Classification from Social Media: Watershed-based and Kernel Methods** TV. Nguyen, MS. Dao, R. Mattivi, E. Sansone, F.G.B. De Natale, G. Boato MediaEval Workshop

Languages

Italian:	Mothertongue
English:	Fluent (C2)
German:	Fluent (B2)

Interests

Volunteering	From 2012 to 2014, I've participated to a no-profit association, GiPro, composed by young representatives of different sectors (e.g. ski instructors, engineers, lawyers, psychologists). The goal of the association is to promote the professional categories on the territory and stimulate the inter-professional collaboration of young people.
Others	I like playing soccer, alpine excursions.

References

UPON REQUEST