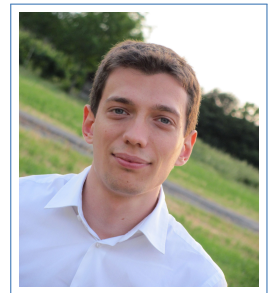


# Lorenzo Baraldi

## Curriculum Vitae

✉ [baraldi.lorenzo@gmail.com](mailto:baraldi.lorenzo@gmail.com)

🌐 [www.lorenzobaraldi.com](http://www.lorenzobaraldi.com)



## Education

- 2014–on going **PhD Student**, *University of Modena and Reggio Emilia, Italy*.  
Research topics: Multimedia technologies for video analysis, tagging, retrieval and accessing  
Supervisor: Prof. Rita Cucchiara
- 2012–2014 **Master Degree in Computer Engineering**, *University of Modena and Reggio Emilia, Italy*.  
Mark: 110/110 cum laude  
Thesis title: “Hand Segmentation and Gesture Recognition in Ego-centric Videos”  
Supervisors: Prof. Rita Cucchiara, Dr. Giuseppe Serra  
Abstract: The thesis explores and proposes state-of-the-art computer vision and pattern recognition techniques for hand segmentation and gesture recognition in egocentric vision. The proposed algorithms are tested on prototype wearable sensors.
- 2008–2011 **Bachelor Degree in Computer Engineering**, *University of Modena and Reggio Emilia, Italy*.  
Mark: 110/110 cum laude  
Thesis title: “Dimensionality reduction techniques for Web datasets: PCA vs SVD”  
Supervisor: Dr. Riccardo Lancellotti
- 2003–2008 **Scientific High School Diploma**, *Scientific High School “A. Tassoni”, Modena, Italy*.  
Mark: 100/100 cum laude

## Languages

- Italian **Mother tongue**
- English **Council of Europe Level B2 – Cambridge ESOL Certificate**
- French **Basic**

## Computer skills

- Programming languages C, C++, Matlab, Python, Java, Javascript, CUDA, HTML
- Databases SQL, Microsoft SQL Server
- Libraries OpenCV, Caffe, Theano, Keras

## Research Interests

- Computer Vision
- Image Processing
- Pattern Recognition and Machine Learning
- Deep Learning
- Multimedia

## Others

### Seminars, courses and events attended

- 2015 “Insights from Big Data: Interaction, Design and Innovation” – Dr. Alejandro Jaimes, 2015
- “A Vision for the Future of Computer Science & Engineering and Higher Education” – Dr. James C. Spohrer (Leader of IBM's Cognitive Systems Institute Group), 2015
- “Innovation, Inspiration and Vision” – Prof. Arnold Smeulders - Professor at the University of Amsterdam, Director of COMMIT, Founder of EuVision, 2015
- “GPU Programming” – Dott. Francesco Paci, 2015
- “Computer Graphics and 3D Reconstruction” – Prof. Nadia Magnenat Thalmann (Director of the Institute for Media Innovation in Singapore) and Prof. Daniel Thalmann, 2015
- Italian Research Conference on Digital Libraries - IRCDL, Bolzano 2015
- 7th Iberian Conference on Pattern Recognition and Image Analysis - IbPRIA, Santiago de Compostela, 2015
- International Conference on Multimedia and Expo - ICME, Torino, 2015
- International Computer Vision Summer School - ICVSS, Sicily, 2015
- 2014 “Second Short Spring School on Surveillance” – S5, 2014
- “Egocentric Recognition of Objects and Activities” – Prof. James M. Rehg, 2014
- “Active Contours in Image Processing and Computer Vision” – Prof. Anthony Yezzi, 2014
- “Introduction to Machine Learning and Online Learning” – Prof. Roberto Paredes, 2014
- 2012 “Analyzing human activities in video” – Prof. Larry Davis, 2012

### Teaching activities

- 2015 Laboratory assistant for the Computer Vision course, Prof. Cucchiara, at University of Modena and Reggio Emilia
- Laboratory assistant for the MUMET Master, at University of Modena and Reggio Emilia
- Teaching assistant for the Machine Learning course: lectures on Deep Learning and Convolutional Neural Networks

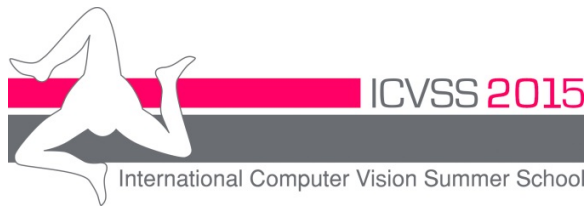
### Journals Reviewing

Multimedia Tools and Applications (Springer)

---

## Publications

- 2015 Baraldi, Lorenzo, Costantino Grana, and Rita Cucchiara. "A Deep Siamese Network for Scene Detection in Broadcast Videos". In: *Proceedings of the 23rd ACM International Conference on Multimedia*.
- Baraldi, Lorenzo, Costantino Grana, and Rita Cucchiara. "Analysis and Re-use of Videos in Educational Digital Libraries with Automatic Scene Detection". In: *Proceedings of the 11th Italian Research Conference on Digital Libraries*. Bolzano, Italy.
- Baraldi, Lorenzo, Costantino Grana, and Rita Cucchiara. "Measuring Scene Detection Performance". In: *Proceedings of the 7th Iberian Conference on Pattern Recognition and Image Analysis*. Santiago de Compostela, Spain, pp. 395–403.
- Baraldi, Lorenzo, Costantino Grana, and Rita Cucchiara. "Scene segmentation using Temporal Clustering for Accessing and Re-using Broadcast Video". In: *Proceedings of the IEEE International Conference on Multimedia and Expo (IEEE ICME 2015)*. Torino, Italy.
- Baraldi, Lorenzo, Costantino Grana, and Rita Cucchiara. "Shot and scene detection via hierarchical clustering for re-using broadcast video". In: *Proceedings of the 16th International Conference on Computer Analysis of Images and Patterns*. Valletta, Malta.
- Baraldi, Lorenzo et al. "Gesture Recognition using Wearable Vision Sensors to Enhance Visitors' Museum Experiences". In: *IEEE Sensors Journal* 15.5, pp. 2705–2714.
- 2014 Baraldi, Lorenzo et al. "Gesture Recognition in Ego-Centric Videos using Dense Trajectories and Hand Segmentation". In: *Proc. of 10th IEEE Embedded Vision Workshop (EVW)*. Columbus, Ohio.
- 2013 Serra, Giuseppe et al. "Hand Segmentation for Gesture Recognition in EGO-Vision". In: *Proc. of ACM Multimedia International Workshop on Interactive Multimedia on Mobile and Portable Devices (IMMPD)*. Barcelona, Spain.



To whom it may concern

This is to certify that Lorenzo Baraldi has successfully completed examination session (1 hour) at the International Computer Vision Summer School, held in Sicily, Italy from the 12th of July to the 18th of July 2015. The examination paper was related the courses (30 hours) delivered by the following world-renowned experts in the field, from both academia and industry:

- Yoshua Bengio, Université de Montréal, Canada
- Thomas Brox, University of Freiburg, Germany
- Daniel Buchmuller, Amazon, Cambridge, UK
- Fei-Fei Li, Stanford University, USA
- Marc Pollefeys, ETH Zurich, Switzerland
- Silvio Savarese, Stanford University, USA
- Cees Snoek, University of Amsterdam, The Netherlands
- Stefano Soatto, UCLA, USA
- Doris Tsao, California Institute of Technology, USA
- Andrea Vedaldi, University of Oxford, United Kingdom
- Rene Vidal, The Johns Hopkins University, USA
- Takeo Kanade, Carnegie Mellon University, USA
- Stéphane Mallat, École Normale Supérieure, France
- Matthew Zeiler, Clarifai, USA

The courses have covered both theoretical and practical aspects of real Computer Vision problems as well as examples of their successful commercialization.

Sicily, 19 July 2015

The School Directors

Prof. Sebastiano Battiato

Prof. Roberto Cipolla

Dr. Giovanni Maria Farinella