Lorenzo Baraldi

Curriculum Vitae

✉ *baraldi.lorenzo@gmail.com*
🖥 *www.lorenzobaraldi.com*
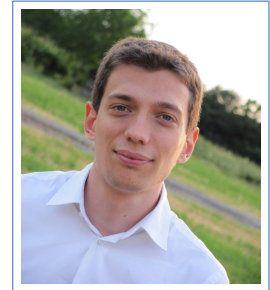
Education

2014–ongoing	**PhD Student**, *University of Modena and Reggio Emilia, Italy*. 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 algortihms 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	**Mothertongue**
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

Research Interests

- Computer Vision
- Pattern Recognition and Machine Learning
- Artificial Intelligence
- Image Processing
- Deep Learning

Others

Seminars, courses and events attended

"Analyzing human activities in video" – Prof. Larry Davis, 2012

"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

Italian Research Conference on Digital Libraries - IRCDL, Bolzano 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

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

Teaching activities

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

Journals Reviewing

Multimedia Tools and Applications (Springer)

Publications

[1] Lorenzo Baraldi, 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*.

[2] Lorenzo Baraldi, 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.

[3] Lorenzo Baraldi, 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.

[4] Lorenzo Baraldi, 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.

[5] Lorenzo Baraldi, 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.

[6] Lorenzo Baraldi 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.

[7] Lorenzo Baraldi et al. "Gesture Recognition using Wearable Vision Sensors to Enhance Visitors' Museum Experiences". In: *IEEE Sensors Journal* 15.5, pp. 2705–2714.

[8] Giuseppe Serra 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.