# Lorenzo Baraldi

Curriculum Vitae

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# Education

2014-on **PhD Student**, University of Modena and Reggio Emilia, Italy.

going Supervisor: Prof. Rita Cucchiara

 $2012-2014 \quad \textbf{Master Degree in Computer Engineering}, \ \textit{University of Modena and Reggio}$ 

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,

ltaly.

Mark: 100/100 cum laude

# Languages

Italian Mothertongue

English Council of Europe Level B2 – Cambridge ESOL Certificate

French Basic

# Computer skills

Programming C, C++, Matlab, Python, Java, Javascript, CUDA

languages

Databases SQL

Libraries OpenCV, Caffe, Torch7

# **Publications**

Title Shot and scene detection via hierarchical clustering for re-using broadcast video

Authors L. Baraldi, C. Grana, R. Cucchiara CAIP 2015

Title Scene segmentation using Temporal Clustering for Accessing and Re-using Broadcast Video

Authors L. Baraldi, C. Grana, R. Cucchiara ICME 2015

Title Measuring Scene Detection Perfomance

Authors L. Baraldi, C. Grana, R. Cucchiara IbPRIA 2015

Title Gesture Recognition using Wearable Vision Sensors to Enhance Visitors' Museum Experiences

Authors L. Baraldi, F. Paci, G. Serra, L. Benini, R. Cucchiara IEEE Sensors Journal

Title Analysis and Re-use of Videos in Educational Digital Libraries with Automatic Scene Detection

Authors L. Baraldi, C. Grana, R. Cucchiara

In Proceedings of the 11th Italian Research Conference on Digital Libraries, 2015

Title Gesture Recognition in Ego-Centric Videos using Dense Trajectories and Hand Segmentation

Authors L. Baraldi, F. Paci, G. Serra, L. Benini, R. Cucchiara

In IEEE Computer Vision and Pattern Recognition (CVPR) Embedded Vision Workshop (EVW), 2014

Title Hand Segmentation and Gesture Recognition in EGO-Vision

Authors G. Serra, M. Camurri, L. Baraldi, M. Benedetti, R. Cucchiara

In Proc. of ACM Multimedia International Workshop on Interactive Multimedia on Mobile and Portable Devices (IMMPD), 2013

#### 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

#### 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)

## Interests

- Computer Vision

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