



Vittorio Cuculo

POSTDOCTORAL RESEARCHER · INTERACTION DEVELOPER

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"I don't have any solution, but I certainly admire the problem."

Education

Università degli Studi di Milano (UNIMI)

PH.D. IN MATHEMATICAL SCIENCES

Milan, Italy

2014 - 2017

- THESIS: "A probabilistic approach to the construction of a multimodal affect space".
- KEYWORDS: Affective computing, machine learning, facial expressions, physiological signals.

Università degli Studi di Milano (UNIMI)

M.S. **CUM LAUDE** IN COMPUTER SCIENCE

Milan, Italy

2007 - 2011

- THESIS: "Using sparse coding for landmark localization in facial expressions"
- KEYWORDS: Computer vision, sparse coding, facial expression.

Uppsala Universitet (IT.UU)

ERASMUS STUDENT

Uppsala, Sweden

2010

Università di Pisa (UNIFI)

B.S. IN COMPUTER SCIENCE

Pisa, Italy

2007 - 2011

- THESIS: "Integration of instant message and videocall tools in the project DIASPORA*"
- KEYWORDS: Videochat, XMPP, RTMFP, social network, web.

Experience

Università degli Studi di Milano (UNIMI)

POSTDOCTORAL RESEARCHER IN COMPUTER SCIENCE

Milan, Italy

Mar. 2018 - PRESENT

- Founding member of the **PHuSe Lab** research group at the Computer Science Dept. of UNIMI.
- Co-supervised several bachelor and master theses on topics related to my research interests.
- Assisted and tutored the exam projects for the master courses of "Natural Interaction" and "Affective computing models".
- KEYWORDS: Affective computing, eye gaze, probabilistic models, machine learning.

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INTERACTION DEVELOPER

Milan, Italy

Aug. 2013 - Aug. 2017

- Developed about 10 permanent and temporary interactive installations mixing architecture, design and digital technologies.
- Implemented several prototypes and final products adopting computer vision, embedded systems, sensors, mobile applications and web technologies.
- KEYWORDS: computer vision, HCI, electronics, microcontrollers, Arduino, Raspberry Pi, soldering, physical computing, sensors.

Extracurricular Activity

opendot lab

CO-FOUNDER

Milan, Italy

Apr. 2014 - PRESENT

- opendot is a Fab Lab open and accessible to all, it is a space for innovation, which is generated through research and experimentation, the use of new technologies for rapid prototyping and digital fabrication, in an open and shared way.

CVPL

MEMBER

Sep. 2014 - PRESENT

- Italian Association for Computer Vision, Pattern Recognition and Machine Learning.

Google

DEVELOPER

May 2011 - Aug. 2011

- Selected as developer for the Google Summer of School 2011. Implemented and integrated a web application for IM and videocall inside the distributed social network DIASPORA*, adopting XMPP and RTMFP protocols.

Honors & Awards

- 2017 **Best Paper Award**, ICIAP 2017 (International Conference on Image Analysis and Processing) *Catania, Italy*
2014 **Ph.D. Scholarship**, UNIMI (Università degli Studi di Milano) *Milan, Italy*
2011 **Student Grant**, GSOC 2011 (Google Summer of Code) *-*

Publications

Peer-reviewed journals

Deep construction of an affective latent space via multimodal enactment

Boccignone, Giuseppe, Donatello Conte, Vittorio Cuculo, Alessandro D'Amelio, Giuliano Grossi, and Raffaella Lanzarotti
IEEE Transactions on Cognitive and Developmental Systems (2018). IEEE, 2018

International peer-reviewed conferences proceedings

AMHUSE: A multimodal dataset for humour sensing

Boccignone, Giuseppe, Donatello Conte, Vittorio Cuculo, and Raffaella Lanzarotti
Proceedings of the 19th ACM International Conference on Multimodal Interaction, 2017

Virtual EMG via facial video analysis [**Best Paper Award**]

Boccignone, Giuseppe, Vittorio Cuculo, Giuliano Grossi, Raffaella Lanzarotti, and Raffaella Migliaccio
International Conference on Image Analysis and Processing, 2017

Taking the Hidden Route: Deep Mapping of Affect via 3D Neural Networks

Ceruti, Claudio, Vittorio Cuculo, Alessandro D'Amelio, Giuliano Grossi, and Raffaella Lanzarotti
International Conference on Image Analysis and Processing, 2017

A Note on Modelling a Somatic Motor Space for Affective Facial Expressions

D'Amelio, Alessandro, Vittorio Cuculo, Giuliano Grossi, Raffaella Lanzarotti, and Jianyi Lin
International Conference on Image Analysis and Processing, 2017

The color of smiling: computational synaesthesia of facial expressions

Cuculo, Vittorio, Raffaella Lanzarotti, and Giuseppe Boccignone
International Conference on Image Analysis and Processing, 2015

Using sparse coding for landmark localization in facial expressions

Cuculo, Vittorio, Raffaella Lanzarotti, and Giuseppe Boccignone
Visual Information Processing (EUVIP), 2014 5th European Workshop on, 2014

Congresses & Seminars

- Jun. 2018 **Symposium**, DataMod 2018 (7th International Symposium From Data to Models and Back) *Toulouse, France*
Nov. 2017 **Conference**, ICMI 2017 (19th ACM International Conference on Multimodal Interaction) *Glasgow, UK*
Sep. 2017 **Conference**, ICIAP 2017 (19th International Conference on Image Analysis and Processing) *Catania, Italy*
Sep. 2017 **Workshop**, 3AS 2017 (1st Automatic Affect Analysis and Synthesis Workshop) *Catania, Italy*
Feb. 2017 **Invited lecture**, "Affective computing" at Workshop of Tangible Interaction - Domus Academy *Milan, Italy*
Nov. 2016 **Invited speaker**, "Machine Learning tra etica, arte e legge" - Opendot *Milan, Italy*
Feb. 2016 **Workshop**, StaTalk on Bayesian Nonparametrics *Moncalieri, Italy*
Sep. 2015 **Conference**, ICIAP 2015 (18th International Conference on Image Analysis and Processing) *Catania, Italy*
Jul. 2015 **Summer School**, ICVSS 2015 (International Computer Vision Summer School) *Scicli, Italy*
May 2015 **Seminar**, Doctoral course of "Bayesian Inference of Stochastic Process Models" *Milan, Italy*
Dec. 2014 **Workshop**, EUVIP 2014 (5th European Workshop on Visual Information Processing) *Paris, France*
Mar. 2011 **Lightning talk**, "DIASPORA* - Social network suitable for Mesh" - 4th Wireless Battle of Mesh *Vic, Spain*
Nov. 2011 **Invited speaker**, "DIASPORA*: un altro social network è possibile" - Nardini Bookstore *Florence, Italy*