

Curriculum Vitae

Personal information

First name / Surname

Marco Cristani

Address

CORSO ROSMINI 80, 38068, ROVERETO, TRENTO, ITALY

Telephone(s)

+39 045 802 7841

Mobile: +39 348 861 9516

E-mail

marco.cristani@univr.it

Nationality

Italian

Date of birth

14 July 1976

Gender

Male

Occupational field

Work experience

Dates

Occupation or position held

Full Professor in Information Engineering (SC 09/H1, SSD ING/INF/05), University of Verona, department of Engineering for the Innovation Medicine (DIMI) (previously *Associate Professor* 2014-2022, *Assistant Professor* 2007-2014, both at the University of Verona)

Main activities and responsibilities

- *Unit coordinator* of 2 research projects: national research project PRIN2017 – "I-MALL, Improving the customer experience in stores by intelligent computer vision" and POR 2014-20 regional project "SAFE PLACE, Sistemi IoT per ambienti di vita salubri e sicuri"
- *Member* of the Council of the National PhD Course in Artificial Intelligence, specialization in Industry 4.0 (supervisor of one Ph.D. student on deep learning)
- *Member* of the Spin off, Industrial and Intellectual Property Commission of the University of Verona
- *President* of the Spinoff Committee of the DIMI dept.
- *Representative* of the Computer Engineering Park (CEP is the ICT Technology Incubator of the University of Verona)
- *Member* of the Council of the UNIVR Master's degree course in Computer Game Development
- *Coordinator* of INTELLIGO Labs, a research group of 15 members
- *Co-founder* and *Chief Research Officer* of Qualyco srl. Spin-off of the University of Verona (2024)
- *Co-founder* and *Chief Research Officer* of Humatics srl. Spin-off of the University of Verona (Humatics has been bought by SYSDAT-Group SPA on July 2021).
- *Lecturer* in BSc, MSc programs on signal and image processing and machine learning courses
- *Supervisor* of 135 BSc, 52 MSc and 15 PhD theses on machine learning and image processing topics
- *Company and Academic Tutor* of 134 BSc, 47 MSc stages on machine learning and image processing topics

Name and address of employer

Università degli Studi di Verona, Via dell'Artigliere, 8 - 37129 Verona

Information Engineering

Dates

2009-2013 (and 2014-to date)

Team Leader (now External Collaborator)

Research, I was/am responsible for the co-supervision of 3 post-doc scholars and 4 PhD students within the PAVIS department (lead by dr. Alessio Del Bue)

Italian Institute of Technology, Via Morego, 30 16163, Genova IT

Information Engineering

Main Activities and responsibilities

Name and address of employer

Italian Institute of Technology, Via Morego, 30 16163, Genova IT

Type of business or sector

	Dates	2014-to date																														
Occupation or position held		<i>Associate Member</i>																														
Main Activities and responsibilities		Research within the Laboratory of Applied Ontology (LOA) research group																														
Name and address of employer		Consiglio Nazionale delle Ricerche (Istituto di Scienze e Tecnologie della Cognizione (ISTC)) Via S.M. della Battaglia n. 44 (CNR supported my research by funding a three-year PhD grant and a three-year Post-Doc contract)																														
Type of business or sector		Artificial Intelligence																														
Education and training																																
	Dates																															
Title of qualification awarded		2003-2006																														
Principal subjects/occupational skills		<i>Ph.D.</i> , with a thesis titled “ <i>Statistical generative modelling of audio-video sequences for scene analysis</i> ” (supervisor: Prof. Vittorio Murino)																														
Name and type of organisation providing education and training		Computer Science																														
		University of Verona																														
	Dates																															
Title of qualification		Nov 2004-May 2005																														
Principal subjects/occupational skills		<i>Research Scholar</i>																														
Name and type of organisation providing education and training		Information Engineering																														
		University of Southern California, CA, US																														
Personal skills and competences																																
Mother tongue(s)		Italian																														
Other language(s)																																
Self-assessment																																
<i>European level (*)</i>																																
Language																																
		<table border="1"> <thead> <tr> <th colspan="2">Understanding</th> <th colspan="2">Speaking</th> <th>Writing</th> </tr> <tr> <th>Listening</th> <th>Reading</th> <th>Spoken interaction</th> <th>Spoken production</th> <th></th> </tr> </thead> <tbody> <tr> <td>C2</td> <td>English</td> <td>C2</td> <td>English</td> <td>C2</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>English</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>C2</td> </tr> <tr> <td></td> <td></td> <td></td> <td></td> <td>English</td> </tr> </tbody> </table>	Understanding		Speaking		Writing	Listening	Reading	Spoken interaction	Spoken production		C2	English	C2	English	C2					English					C2					English
Understanding		Speaking		Writing																												
Listening	Reading	Spoken interaction	Spoken production																													
C2	English	C2	English	C2																												
				English																												
				C2																												
				English																												
		(*) Common European Framework of Reference for Languages																														
Professional skills and competences		<p>I'm a long-experienced researcher on Artificial Intelligence, and in particular Computer Vision and Machine Learning. My focus is on human body modelling and human behaviour modelling, exploiting multimodal data (image, video, sound, text). I have not only worked in the domain, but also contributed to shape its research agenda by authoring some of the most cited works: my top-5 papers granted me 3944 citations, according to Google Scholar.</p> <p>Since 2007, I have coordinated 22 research projects for a total of 1,27Meuro ((among which a European H2020 project H2020-MSCA-ITN-2015, “SceneUnderLight”)</p> <p>I'm IAPR (International Association of Pattern Recognition) Fellow: the number of Fellows awarded biennially must not exceed 0.25% of the total IAPR memberships (9550 members, 280 Fellows in total so far).</p> <p>I'm member of the ELLIS society, European Laboratory for Learning and Intelligent Systems</p> <p>I'm IEEE member.</p> <p>I supervised/I'm supervising 15 PhD students on Computer Science at the University of Verona.</p> <p>As dissemination activities, I gave 14 invited talks at international events (notably, a 1-day tutorial at CVPR 2016 on human behaviour analysis), tens of invited seminars.</p>																														

<p>Organisational skills and competences</p>	<p>I've co-organized 15 intl. workshops since 2010 on machine learning and computer vision (among them, the "Socially Intelligent Surveillance and Monitoring" series), hosted in top-class pattern recognition conferences, and one conference on Machine Learning topics, the 9th Symposium on Conformal and Probabilistic Prediction with Applications, Verona, Sep. 2020).</p> <ul style="list-style-type: none"> • Membership of Editorial Boards and Reviewing of scientific publications: <ul style="list-style-type: none"> • <i>Associate Editor</i> for the following international journals: <ul style="list-style-type: none"> ○ Pattern Recognition (Elsevier, IF 7.740, ISSN 0031-3203, SCIMAGO first quartile Q1 for Computer Vision and Pattern Recognition) ○ Pattern Recognition Letters (Elsevier, IF 2.810, ISSN 0167-8655, SCIMAGO Q1 for Computer Vision and Pattern Recognition) • <i>Guest Associate Editor</i> for the Frontiers In Computer Science (Computer Vision Section) journal special issue on "3D Body modelling for Biomedical Analysis" (Co-Editors Alessandro Vinciarelli and Mohamed Cheoutani), 2023 • <i>Guest Managing Editor</i> for the Pattern Recognition journal special issue on "Conformal and Probabilistic Prediction with Applications" (Guest Editors Alex Gammerman and Vladimir Vovk), will be published in late 2022 • <i>Co-editor</i> for the following books: <ul style="list-style-type: none"> ○ Group and crowd behavior for computer vision (with Vittorio Murino, S. Shah and S. Savarese), Academic Press, 2017, ISBN 978-0-1280-9276-7 ○ Person re-identification (with S. Gong, S. Yan, and C. C.Loy), Advances in Computer Vision and Pattern Recognition, Springer, 2014, ISBN 978-1-4471-6296-4 • Membership of scientific committees for international conferences (Conferences are classified by the GII-GRIN-SCIE (GGS) Conference Rating) <ul style="list-style-type: none"> • <i>Area Chair</i> for the IEEE Computer Vision and Pattern Recognition conference CVPR 2025. CVPR is classified as Class 1 and rated A++ by the GII-GRIN-SCIE; • <i>Area Chair</i> for the European Conference on Computer Vision ECCV 2022, ECCV 2024. ECCV is classified as Class 1 and rated A++ by the GII-GRIN-SCIE; • <i>Demo Chair</i> for the European Conference on Computer Vision ECCV 2024; • <i>Senior Program Committee Member</i> for the 30th International Joint Conference on Artificial Intelligence IJCAI 2019-20-21; IJCAI is classified as Class 1 and rated A++ by the GII-GRIN-SCIE; • <i>Doctoral Symposium Co-chair</i> for the ACM International Conference on Multimedia 2013 (ACM MM); ACM MM is classified as Class 1 and rated A++ by the GII-GRIN-SCIE; • <i>Area Chair</i> for the IEEE WACV 2021, 2015: Winter conference on Applications of Computer Vision; WACV is classified as Class 2 and rated A by the GII-GRIN-SCIE;
<p>Technical skills and competences</p>	<p>I published 4 patents: IT n.102020000010411, IT 102018000005381, IT 102016000103146, IT 102016000103076, all of them on 3D modelling of objects and human body/behavior</p> <p>I have been evaluated by ANVUR - VQR 2015-19, National Research Evaluation: A-A-A-A</p>

Bibliometric analysis

Co-author of more than 300 international publications. In the detail, 2 books, 52 international journal papers, 240 conference papers, 13 book chapters, winning 6 intl. prizes (notably, the Best student paper award IBM prize at the IEEE ICPR 2010).

***h*-Index: 50**

Total citations: 12753

Source: *Google Scholar*, accessed Sept 15th, 2024.

***h*-Index: 40**

Total citations: 7669.

Source: *Scopus*, accessed Sept 15th, 2024.

Scopus Author ID:8244336900; ORCID ID:0000-0002-0523-6042

Selected publications of interest (2019-2024)

-- Journals:

1. Taioli, F., Giuliani, F., Wang, Y., Berra, R., Castellini, A., Del Bue, A., Cristani, M., & Setti, F. (2024). **Unsupervised active visual search with Monte Carlo planning under uncertain detections**. IEEE Transactions on Pattern Analysis and Machine Intelligence.
2. Capogrosso, L., Cunico, F., Cheng, D. S., Fummi, F., & Cristani, M. (2024). **A machine learning-oriented survey on Tiny Machine Learning**. IEEE Access (in print).
3. Giuliani, F., Skenderi, G., Cristani, M., Del Bue, A., & Wang, Y. (2023). **Leveraging commonsense for object localisation in partial scenes**. IEEE Transactions on Pattern Analysis and Machine Intelligence, 45(10), 12038-12049.
4. Franco, L., Placidi, L., Giuliani, F., Hasan, I., Cristani, M., & Galasso, F. (2023). **Under the hood of transformer networks for trajectory forecasting**. Pattern Recognition, 138, 109372.
5. Emporio, M., Caputo, A., Giachetti, A., Cristani, M., Borghi, G., D'Eusonio, A., Le, M.-Q., Nguyen, H.-D., Tran, M.-T., Ambellan, F., Hanik, M., Nava-Yazdani, E., & von Tycowicz, C. (2022). **SHREC 2022 track on online detection of heterogeneous gestures**. Computers & Graphics, 107, 241-251.
6. Hasan, I., Setti, F., Tsesmelis, T., Belagiannis, V., Amin, S., Del Bue, A., Cristani, M., & Galasso, F. (2021). **Forecasting people trajectories and head poses by jointly reasoning on tracklets and vislets**. IEEE Transactions on Pattern Analysis and Machine Intelligence, 43(4), 1267-1278.
7. Roffo, G., Melzi, S., Castellani, U., Vinciarelli, A., & Cristani, M. (2021). **Infinite feature selection: A graph-based feature filtering approach**. IEEE Transactions on Pattern Analysis and Machine Intelligence, 43(12), 4396-4410.
8. Demrozi, F., Bacchin, R. A., Tamburin, S., Cristani, M., & Pravadelli, G. (2020). **Toward a wearable system for predicting freezing of gait in people affected by Parkinson's disease**. IEEE Journal of Biomedical and Health Informatics, 24(9), 2444-2451.
9. Cristani, M., Del Bue, A., Murino, V., Setti, F., & Vinciarelli, A. (2020). **The visual social distancing problem**. IEEE Access, 8, 126876-126886.
10. Setti, F., & Cristani, M. (2019). **Evaluating the group detection performance: The GRODE metrics**. IEEE Transactions on Pattern Analysis and Machine Intelligence, 41(3), 566-580.

-- Conferences:

1. Serez, D., Moriero, P., Del Bue, A., Cristani, M., & Murino, V. (2025). **Pre-trained multiple latent variable generative models are good defenders against adversarial attacks**. Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV).
2. Capogrosso, L., Fraccaroli, E., Chakraborty, S., Fummi, F., & Cristani, M. (2024). **MTL-Split: Multi-Task Learning for Edge Devices using Split Computing**. 61st Design Automation Conference (DAC). In stampa

3. Emporio, M., Caputo, A., Pintani, D., Cunico, F., Girella, F., Avogaro, A., Cristani, M., & Giachetti, A. (2023). **Demo: gesture based interaction with the Hololens 2.** CHItaly 2023, 59, 1-2.
4. Cunico, F., Girella, F., Avogaro, A., Emporio, M., Giachetti, A., & Cristani, M. (2023). **OO-dMVMT: A Deep Multi-view Multi-task Classification Framework for Real-time 3D Hand Gesture Classification and Segmentation.** CVPR Workshops 2023, 2745-2754.
5. Taioli, F., Cunico, F., Girella, F., Bologna, R., Farinelli, A., & Cristani, M. (2023). **Language-enhanced RNR-Map: Querying Renderable Neural Radiance Field maps with natural language.** ICCV (Workshops) 2023, 4671-4676.
6. Capogrosso, L., Mascolini, A., Girella, F., Skenderi, G., Gaiardelli, S., Dall'Orta, N., Ponzio, F., Fraccaroli, E., di Cataldo, S., Vinco, S., Macii, E., Fummi, F., & Cristani, M. (2023, September 13-15). **Neuro-Symbolic Empowered Denoising Diffusion Probabilistic Models for Real-Time Anomaly Detection in Industry 4.0.** Forum on Specification & Design Languages (FDL), Turin, Italy.
7. Toaiari, A., Cunico, F., Taioli, F., Caputo, A., Menegaz, G., Giachetti, A., Farinella, G. M., & Cristani, M. (2023). **SCENE-pathy: Capturing the Visual Selective Attention of People Towards Scene Elements.** ICIAP (1) 2023, 352-363.
8. Capogrosso, L., Cunico, F., Lora, M., Cristani, M., Fummi, F., & Quaglia, D. (2023, May 3-5). **Split-Et-Impera: A Framework for the Design of Distributed Deep Learning Applications.** 26th International Symposium on Design and Diagnostics of Electronic Circuits and Systems (DDECS), Tallinn. pp. 39-44.
9. Cunico, F., Capogrosso, L., Castellini, A., Setti, F., Pluchino, P., Zordan, F., Santus, V., Spagnolli, A., Cordibella, S., Gennari, G., Borgo, M., Sozza, A., Troiano, S., Flor, R., Zanella, A., Farinelli, A., Gamberini, L., & Cristani, M. (2023, April 17-19). **The Post-pandemic Effects on IoT for Safety: The Safe Place Project.** Design, Automation & Test in Europe Conference & Exhibition (DATE), Antwerp. pp. 1-4.
10. Cunico, F., Capogrosso, L., Setti, F., Carra, D., Fummi, F., & Cristani, M. (2022, August 21-25). **I-SPLIT: Deep Network Interpretability for Split Computing.** Proc. International Conference on Pattern Recognition (ICPR), Montreal, QC, Canada.
11. Sampieri, A., D'Amely di Melendugno, G. M., Avogaro, A., Cunico, F., Setti, F., Skenderi, G., Cristani, M., & Galasso, F. (2022). **Pose Forecasting in Industrial Human-Robot Collaboration.** European Conference on Computer Vision. In Lecture Notes in Computer Science (pp. 51-69). Cham: Springer Nature Switzerland.
12. Giuliani, F., Castellini, A., Berra, R., Del Bue, A., Farinelli, A., Cristani, M., & Setti, F. (2021, September 27 - October 1). **POMP++: Pomcp-based Active Visual Search in unknown indoor environments.** IEEE/RSJ International Conference on Intelligent Robots and Systems, IROS 2021, Prague, Czech Republic. pp. 1523-1530. <https://doi.org/10.1109/IROS51168.2021.9636395>
13. Wang, Y., Giuliani, F., Berra, R., Castellini, A., Del Bue, A., Farinelli, A., Cristani, M., & Setti, F. (2020). **POMP: Pomcp-based Online Motion Planning for active visual search in indoor environments.** BMVC 2020.
14. Wang, Y., Carletti, M., Setti, F., Cristani, M., & Del Bue, A. (2019). **Active 3D Classification of Multiple Objects in Cluttered Scenes.** ICCV Workshops 2019, 2602-2610.
15. Cunico, F., Carletti, M., Cristani, M., Masci, F., & Coniglio, D. (2019). **6D Pose Estimation for Industrial Applications.** ICIAP Workshops 2019, 374-384.
16. Berra, R., Setti, F., & Cristani, M. (2019). **Gaze-Based Human-Robot Interaction by the Brunswick Model.** ICIAP (2) 2019, 511-521.
17. Berra, R., Setti, F., & Cristani, M. (2019). **Berrick: a low-cost robotic head platform for human-robot interaction.** SMC 2019, 559-566.
18. Tsesmelis, T., Hasan, I., Cristani, M., Del Bue, A., & Galasso, F. (2019). **Human-Centric Light Sensing and Estimation From RGBD Images: The Invisible Light Switch.** WACV 2019, 416-425. <https://doi.org/10.1109/WACV.2019.00053>
19. Tsesmelis, T., Hasan, I., Cristani, M., Galasso, F., & Del Bue, A. (2019). **RGBD2lux: Dense Light Intensity Estimation With an RGBD Sensor.** WACV 2019, 501-510. <https://context.reverso.net/traduzione/italiano-inglese/non+valido>

According to law 679/2016 of the Regulation of the European Parliament of 27th April 2016, I express my consent to process and use data provided in this CV.

Signed in p7m by Marco Cristani