

Dr. FABIO POIESI

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EDUCATION

PhD in Electronic Engineering (Queen Mary University of London, UK)	Apr 2010 - Mar 2014
Master in Telecommunication Engineering (Università degli Studi di Brescia, IT)	Sep 2007 - Mar 2010
Bachelor in Telecommunication Engineering (Università degli Studi di Brescia, IT)	Sep 2003 - Nov 2007

WORK EXPERIENCE

Head of Technologies of Vision (Fondazione Bruno Kessler, IT)	Jan 2024 - Present
Affiliated Researcher (Istituto Italiano di Tecnologia, IT)	Feb 2022 - Present
Research Scientist (Fondazione Bruno Kessler, IT)	Oct 2016 - Dec 2023
Teaching Assistant (Free University of Bolzano, IT)	Feb 2018 - Feb 2021
Postdoctoral Research Assistant (Queen Mary University of London, UK)	May 2014 - Sep 2016

SELECTED PUBLICATIONS

- G. Mei, C. Saltori, E. Ricci, N. Sebe, Q. Wu, J. Zhang, F. Poiesi, “Unsupervised Point Cloud Representation Learning by Clustering and Neural Rendering,” International Journal on Computer Vision (IJCV), to appear 2024
- C. Saltori, F. Galasso, G. Fiameni, N. Sebe, F. Poiesi, E. Ricci, “Compositional Semantic Mix for Domain Adaptation in Point Cloud Segmentation,” IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI), Dec 2023
- R. Jiao, Y. Wan, F. Poiesi, Y. Wang, ”Survey on video anomaly detection in dynamic scenes with moving cameras,” Artificial Intelligence Review, Oct 2023
- Y. Zhou, G. Mei, Y. Wang, F. Poiesi, Y. Wan, “Attentive Multimodal Fusion for Optical and Scene Flow”, IEEE Robotics and Automation Letters (RAL), Jul 2023
- F. Poiesi, D. Boscaini, “Learning general and distinctive 3D local deep descriptors for point cloud registration,” IEEE Trans. on Pattern Analysis and Machine Intelligence (TPAMI), Mar 2023
- L. Riz, C. Saltori, E. Ricci, F. Poiesi, “Novel Class Discovery for 3D Point Cloud Semantic Segmentation,” Computer Vision and Pattern Recognition (CVPR), Jun 2023
- M.L. Mekhalfi, D. Boscaini, F. Poiesi, “Detect, Augment, Compose, and Adapt: Four Steps for Unsupervised Domain Adaptation in Object Detection,” British Machine Vision Conference (BMVC), Nov 2023
- G. Mei, F. Poiesi, C. Saltori, J. Zhang, E. Ricci, N. Sebe, “Overlap-guided Gaussian Mixture Models for Point Cloud Registration,” Winter Conference on Applications of Computer Vision (WACV), Jan 2023
- Y. Zhou, Y. Wang, F. Poiesi, Q. Qin, Y. Wan, “Loop closure detection using local 3D deep descriptors,” IEEE Robotics and Automation Letters (RAL), Mar 2022.
- C. Saltori, F. Galasso, G. Fiameni, N. Sebe, E. Ricci, F. Poiesi, “CoSMix: Compositional semantic mix for domain adaptation in 3D LiDAR segmentation,” European Conference on Computer Vision (ECCV), Oct 2022
- C. Saltori, E. Krivosheev, S. Lathuiliere, N. Sebe, F. Galasso, G. Fiameni, E. Ricci, F. Poiesi, “GIPSO: Geometrically Informed Propagation for Online Adaptation in 3D LiDAR Segmentation,” European Conference on Computer Vision (ECCV), Oct 2022
- G. Mei, C. Saltori, F. Poiesi, J. Zhang, E. Ricci, N. Sebe, Q. Wu, “Data Augmentation-free Unsupervised Learning for 3D Point Cloud Understanding,” British Machine Vision Conference (BMVC), Nov 2022
- Y. Zhou, Y. Wang, F. Poiesi, Q. Qin, Y. Wan “Loop closure detection using local 3D deep descriptors,” IEEE Robotics and Automation Letters (RAL), Jul 2022

PARTICIPATION TO RELEVANT PROJECTS

Sweet6D , Funded by Cineca Iskra C, Role: Principal investigator	Feb 2024 - Present
SHIELD , Funded by JPI-CH/MIUR, Role: Principal investigator	Nov 2020 - Aug 2023
GPI RIEDL Phasys , Funded by GPI S.p.A., Role: Principal investigator	Feb 2020 - Dec 2022
Augmented Reality for PAMA 4.0 , Funded by PAMA S.p.A., Role: Principal investigator	Sep 2020 - Dec 2021
REPLICATE for Cultural Heritage , Funded by CARITRO, Role: Post-Doc	Nov 2018 - Oct 2020
UAV-RETINA , Funded by EIT-DIGITAL, Role: Workpackage leader	Oct 2018 - Dec 2019
Cognitive and perceptive cameras , Funded by Artemis JU, Role: Post-Doc	Apr 2013 - Sep 2016

INVITED TALKS

- Title: Point cloud deep descriptors and their application to machine perception
Host: Prof. Yi Wan, Shandong University, Jinan, CN Sep 2023
- Deep machine vision in digital industry
Host: Prof. Yi Wan, Shandong University, Jinan, CN Nov 2022
- Title: Learning general 3D descriptors for point cloud data
Host: Dr. Alessio Del Bue, Istituto Italiano di Tecnologia, Genoa, IT Sep 2020
- Title: Localising, understanding and manoeuvring
Host: Prof. Barbara Caputo, Politecnico di Torino, Turin, IT May 2019
- Title: Formations of flying cameras to follow and film a moving target
Host: Dr. Martin Saska, Czech Technical University, Prague, CZ Mar 2016
- Title: Formations of flying cameras to film a moving target
Host: The London Big-O Meetup, Skills Matter, London, UK Nov 2015
- Title: Multi-target tracking on confidence maps: an application to people tracking
Host: Dr. Marco Cristani, Università degli Studi di Verona, IT Jun 2014

VARIOUS ACADEMIC ACTIVITIES

- Area Chair for European Conference on Computer Vision (ECCV) 2024
- Organiser of 1st Workshop on Maritime Computer Vision
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2023
- Guest Editor for Image and Vision Computing, Elsevier 2022
Special Issue on Video Computation and Reconstruction in Digital Twins
- Guest Editor for ACM Trans. on Multimedia Computing, Communications, and Applications 2022
Special Issue on Deep Learning for Intelligent Human Computer Interaction
- Guest Editor for Virtual Reality & Intelligent Hardware, KeAi 2022
Special Issue on Virtual-reality and intelligent hardware in digital twins
- Area Chair for IEEE International Conference on Pattern Recognition (ICPR) 2020/2022
- Local Chair for Int. Conf. on Image Analysis and Processing (ICIAP) 2019