

Matteo Dunnhofer

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Education

- **PhD** in Industrial and Information Engineering 2018 - 2022
 University of Udine Udine, Italy
 Awarded “cum laude”. Thesis title “Visual Object Tracking with Deep Learning”. Advisor: Prof. Christian Micheloni.
- **MSc** in Computer Science 2016 - 2018
 University of Udine Udine, Italy
- **BSc** in Computer Science 2012 - 2016
 University of Udine Udine, Italy

Academic Positions

- **Marie Skłodowska-Curie Postdoctoral Fellow (RTT)** 2024 - pres
 Department of Mathematics, Computer Science, and Physics, University of Udine Udine, Italy
 Centre for Vision Research, York University Toronto, ON, Canada
 Research activity on computer vision and visual neuroscience.
- **Research Fellow (RTD-a)** 2023 - 2024
 Department of Mathematics, Computer Science, and Physics, University of Udine Udine, Italy
 Research activity on computer vision and deep learning.
- **Postdoctoral Researcher** 2022 - 2023
 Machine Learning and Perception Lab, University of Udine Udine, Italy
 Research activity on computer vision methods for athlete performance analysis in winter sports.
- **Postdoctoral Researcher** 2021 - 2022
 Machine Learning and Perception Lab, University of Udine Udine, Italy
 Research activity on weakly-supervised deep learning methods for visual object tracking.

Visiting Positions

- **Visiting Researcher** 2024 - pres
 Centre for Vision Research
 York University Toronto, ON, Canada
 Two year visiting period to implement the outgoing phase of the MSCA Postdoctoral Fellowship’s project PRINNEVOT.
- **Visiting Researcher** 2023
 McGovern Institute for Brain Research
 Massachusetts Institute of Technology (MIT) Cambridge, MA, USA
 Two weeks visiting period dedicated to preparing a MSCA Postdoctoral Fellowship proposal.
- **Visiting Researcher** 2023
 Centre for Vision Research

York University

Toronto, ON, Canada

One week visiting period dedicated to preparing a MSCA Postdoctoral Fellowship proposal.

- **Visiting Researcher**
University of Alcalá
Three weeks visiting period under the grant “Giner de los Rios” dedicated to host foreign scientists at the aforementioned institution.
2023
Alcalá de Henares, Madrid, Spain
- **Visiting Student**
Australian Centre for Robotic Vision
Queensland University of Technology
One month visiting period for research on visual tracking of knee cartilages in ultrasound videos.
2018
Brisbane, QLD, Australia

Industrial Experience

- **Deep Learning Engineer**
Medishare srl
Development and deployment of a breast density classifier for mammographies based on multi-view convolutional neural networks.
2018
Gorizia, Italy
- **Software Developer**
Self-employed
Design and development of: an iOS and Android app; a webapp for the registration and payment to a local sport association; a distributed system to manage competition data in real-time during ski jumping competitions.
2015 - 2017

Publications

Journal Papers

- **Dunnhofer, M., Micheloni, C. (2024).**
Visual tracking in camera-switching outdoor sport videos: Benchmark and baselines for skiing.
Computer Vision and Image Understanding. IF: 4.5, Scimago Q1 (2022).
<https://doi.org/10.1016/j.cviu.2024.103978>
- **Dunnhofer, M., Furnari, A., Farinella, G. M. F., Micheloni, C. (2023).**
Visual Object Tracking in First Person Vision.
International Journal of Computer Vision. IF: 19.5, Scimago Q1 (2022).
<https://doi.org/10.1007/s11263-022-01694-6>
- **Dunnhofer, M., Martinel, N., Micheloni, C. (2022).**
Deep Convolutional Feature Details for Better Knee Disorder Diagnosis in Magnetic Resonance Images.
Computerized Medical Imaging and Graphics. IF: 5.7, Scimago Q1 (2022).
<https://doi.org/10.1016/j.compmedimag.2022.102142>
- **Dunnhofer, M., Simonato, K., Micheloni, C. (2022).**
Combining Complementary Trackers for Enhanced Long-Term Visual Object Tracking.
Image and Vision Computing. IF: 4.7, Scimago Q2 (2022).
<https://doi.org/10.1016/j.imavis.2022.104448>
- **Dunnhofer, M., Martinel, N., Micheloni, C. (2021).**
Weakly-Supervised Domain Adaptation of Deep Regression Trackers via Reinforced Knowledge Distillation.
IEEE Robotics and Automation Letters. IF: 5.2, Scimago Q1 (2022).
<https://doi.org/10.1109/LRA.2021.3070816>
- **Martinel, N., Dunnhofer, M., Pucci, R., Foresti, G. L., Micheloni, C. (2021).**
Lord of the Rings: Hanoi Pooling and Self-Knowledge Distillation for Fast and Accurate Vehicle Re-Identification.
IEEE Transactions on Industrial Informatics. IF: 12.3, Scimago Q1 (2022).
<https://doi.org/10.1109/TII.2021.3068927>

- Miani, M., **Dunnhofer, M.**, Micheloni, C., Marini, A., Baldo, N. (2021).
Surrogate Safety Measures Prediction at Multiple Timescales in V2P Conflicts Based on Gated Recurrent Unit.
Sustainability. IF: 3.9, Scimago Q1 (2022).
<https://doi.org/10.3390/su13179681>
- Miani, M., **Dunnhofer, M.**, Rondinella, F., Manthos, E., Valentin, J., Micheloni, C., Baldo, N. (2021).
Bituminous Mixtures Experimental Data Modeling Using a Hyperparameters-Optimized Machine Learning Approach.
Applied Sciences. IF: 2.7, Scimago Q2 (2022).
<https://doi.org/10.3390/app112411710>
- **Dunnhofer, M.**, Antico, M., Sasazawa, F., Takeda, Y., Camps, S., Martinel, N., Micheloni, C., Carneiro, G., Fontanarosa, D. (2020).
Siam-U-Net: encoder-decoder siamese network for knee cartilage tracking in ultrasound images.
Medical Image Analysis. IF: 10.9, Scimago Q1 (2022).
<https://doi.org/10.1016/j.media.2019.101631>
- Antico, M., Sasazawa, F., **Dunnhofer, M.**, Camps, S., Jaiprakash, A., Pandey, A., Crawford, R., Carneiro, G., Fontanarosa, D. (2020).
Deep learning-based femoral cartilage automatic segmentation in ultrasound imaging for guidance in robotic knee arthroscopy.
Ultrasound in Medicine & Biology. IF: 2.9, Scimago Q1 (2022).
<https://doi.org/10.1016/j.ultrasmedbio.2019.10.015>
- Camps, S., Houben, T., Carneiro, G., Edwards, C., Antico, M., **Dunnhofer, M.**, Martens, E., Baeza, J., Vanneste, B., van Limbergen, E., de With, P., Verhaegen, F., Fontanarosa, D. (2020).
Automatic quality assessment of transperineal ultrasound images of the male pelvic region.
Ultrasound in Medicine & Biology. IF: 2.9, Scimago Q1 (2021).
<https://doi.org/10.1016/j.ultrasmedbio.2019.10.027>

Conference Papers

- Nottebaum, M., **Dunnhofer, M.**, Micheloni, C. (2025).
LowFormer: Hardware Efficient Design for Convolutional Transformer Backbones.
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV).
Accepted for publication.
- **Dunnhofer, M.**, Sordi, L., Martinel, N., Micheloni, C. (2024).
Tracking Skiers from the Top to the Bottom.
IEEE/CVF Winter Conference on Applications of Computer Vision (WACV).
<https://doi.org/10.1109/WACV57701.2024.00832>
- **Dunnhofer, M.**, Sordi, L., Micheloni, C. (2023).
Visualizing Skiers' Trajectories in Monocular Videos.
IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) Workshops.
<https://doi.org/10.1109/CVPRW59228.2023.00547>
- **Dunnhofer, M.**, Micheloni, C. (2023).
Automatic Video-Based Reconstruction of the Trajectories Performed by Skiers.
9th International Congress on Science and Skiing (ICSS).
- Kristan, M., ..., **Dunnhofer, M.**, (2023).
The First Visual Object Tracking Segmentation VOTS2023 Challenge Results.
IEEE/CVF International Conference on Computer Vision (ICCV) Workshops.

- Khan, A. H., Umer, R. M., **Dunnhofer, M.**, Micheloni, C., Martinel, N (2023).
Lightweight Blur Kernel Estimation Network for Blind Image Super-Resolution.
International Conference on Image Analysis and Processing (ICIAP) 2023.
https://doi.org/10.1007/978-3-031-43153-1_18
- **Dunnhofer, M.**, Micheloni, C. (2022).
CoCoLoT: Combining Complementary Trackers in Long-Term Visual Tracking.
International Conference on Pattern Recognition (ICPR).
<https://doi.org/10.1109/ICPR56361.2022.9956082>
- Kristan, M., ..., **Dunnhofer, M.**, (2022).
The Tenth Visual Object Tracking VOT2022 Challenge Results.
European Conference on Computer Vision (ECCV) Workshops.
https://doi.org/10.1007/978-3-031-25085-9_25
- **Dunnhofer, M.**, Furnari, A., Farinella, G. M. F., Micheloni, C. (2021).
Is First Person Vision Challenging for Object Tracking?.
IEEE/CVF International Conference on Computer Vision (ICCV) Workshops.
<https://doi.org/10.1109/ICCVW54120.2021.00304>
- Kristan, M., ..., **Dunnhofer, M.**, (2021).
The Ninth Visual Object Tracking VOT2021 Challenge Results.
IEEE/CVF International Conference on Computer Vision (ICCV) Workshops.
<https://doi.org/10.1109/ICCVW54120.2021.00305>
- **Dunnhofer, M.**, Martinel, N., Micheloni, C. (2021).
Improving MRI-based Knee Disorder Diagnosis with Pyramidal Feature Details.
International Conference on Medical Imaging with Deep Learning (MIDL).
<https://proceedings.mlr.press/v143/dunnhofer21a.html>
- Miani, M., **Dunnhofer, M.**, Micheloni, C., Marini, A., Baldo, N. (2021).
Young drivers' pedestrian anti-collision braking operation data modelling for ADAS development.
Living and Walking in Cities Conference (LWC).
<https://doi.org/10.1016/j.trpro.2021.12.056>
- **Dunnhofer, M.**, Martinel, N., Micheloni, C. (2020).
Tracking-by-Trackers with a Distilled and Reinforced Model.
Asian Conference on Computer Vision (ACCV).
https://doi.org/10.1007/978-3-030-69532-3_38
- **Dunnhofer, M.**, Martinel, N., Micheloni, C. (2020).
An Exploration of Target-Conditioned Segmentation Methods for Visual Object Trackers.
European Conference on Computer Vision (ECCV) Workshops.
https://doi.org/10.1007/978-3-030-69532-3_38
- Kristan, M., ..., **Dunnhofer, M.**, (2020).
The Eight Visual Object Tracking VOT2020 Challenge Results.
European Conference on Computer Vision (ECCV) Workshops.
https://doi.org/10.1007/978-3-030-68238-5_39
- **Dunnhofer, M.**, Martinel, N., Foresti, G. L., Micheloni, C. (2019).
Visual Tracking by means of Deep Reinforcement Learning and an Expert Demonstrator.
IEEE/CVF International Conference on Computer Vision (ICCV) Workshops.
<https://doi.org/10.1109/ICCVW.2019.00282>
- Kristan, M., ..., **Dunnhofer, M.**, (2019).
The Seventh Visual Object Tracking VOT2019 Challenge Results.

IEEE/CVF International Conference on Computer Vision (ICCV) Workshops.

<https://doi.org/10.1109/ICCVW.2019.00276>

- Chini, M., Martinel, N., **Dunnhofer, M.**, Ceschia, C., Micheloni, C. (2018).
Unsupervised Smoke Detection in Normally Smoking Environments.
International Conference on Distributed Smart Cameras (ICDSC).
<https://doi.org/10.1145/3243394.3243699>
- Camps, S., Houben, T., Fontanarosa, D., Edwards, C., Antico, M., **Dunnhofer, M.**, Martens, E., Baeza, J., Vanneste, B., van Limbergen, E., de With, P., Verhaegen, Carneiro, G., F. (2018).
One-class Gaussian process regressor for quality assessment of transperineal ultrasound images.
International Conference on Medical Imaging with Deep Learning (MIDL).
<https://openreview.net/pdf?id=r1s0gx3iG>
- Camps, S., Houben, T., Edwards, C., Antico, M., **Dunnhofer, M.**, Martens, E., Baeza, J., Vanneste, B., van Limbergen, E., de With, P., Verhaegen, Carneiro, G., F., Fontanarosa, D. (2018).
Quality Assessment of Transperineal Ultrasound Images of the Male Pelvic Region Using Deep Learning.
IEEE International Ultrasonics Symposium (IUS).
<https://doi.org/10.1109/ULTSYM.2018.8579839>

PhD Thesis

- **Dunnhofer, M.** (2022).
Visual Object Tracking with Deep Learning.
University of Udine.

Bibliometrics

Last updated on 12-09-2024

Database	Citations	H-index	Publications
Google Scholar	1469	16	32
ResearchGate	1432	16	32
Scopus	896	11	29

Awards & Achievements

Awards

- Outstanding Reviewer Award recognized by the European Conference on Computer Vision (ECCV) 2022
Selected to be among the best 205 conference reviewers, out of 4719.
- Winning Tracker Award recognized by the VOT Challenge Committee
Prize received for the development of the most accurate algorithm in the Visual Object Tracking VOT2021 Long-Term Challenge held at the International Conference on Computer Vision (ICCV) 2021.
- QUT Postgraduate Research Award (International) recognized by the Queensland University of Technology
Living expenses fund for PhD students awarded by the Queensland University of Technology in 2018. I had to refuse the award after my admission in the PhD program at the University of Udine.

Achievements

- Italian Scientific Habilitation (Abilitazione Scientifica Nazionale) for Associate Professor positions (Professori II Fascia) in Computer Science
Issued by the Italian Ministry of University and Research (MUR) on 15/07/2024 (Settore Concorsuale 01/B1 - INFORMATICA).

- Italian Scientific Habilitation (Abilitazione Scientifica Nazionale) for Associate Professor positions (Professori II Fascia) in Information Engineering
Issued by the Italian Ministry of University and Research (MUR) on 17/12/2023 (Settore Concorsuale 09/H1 - SISTEMI DI ELABORAZIONE DELLE INFORMAZIONI).
- Doctoral Consortium Fellowship by the International Conference on Computer Vision (ICCV) 2021
Mentor: Dr. Joao Henriques, Visual Geometry Group, University of Oxford, United Kingdom.
- Top-10 Finish at the Visual Object Tracking VOT2020 Challenge
Results achieved in both the Short-Term and Real-Time challenges held at the European Conference on Computer Vision (ECCV) 2020.
- Bronze Medal (Top 10%) in Kaggle’s “Planet: Understanding the Amazon from Space” competition

Grants

- Project Aria Academic Partnership by Meta (2024)
Hardware grant received to support the research activity on visual object tracking in first person egocentric vision.
- MSCA Postdoctoral Global Fellowship (256 442,88€) by the European Commission (2024)
- Giner de los Rios (~1700€) by the University of Alcalá (2022)
Competitive expense-covering grant to spend a visiting period at the institution.
- Voucher for EU Horizon Europe Proposals (5000€) by the University of Udine (2022)
Grant to cover the training expenses to prepare a proposal for the 2023 MSCA Postdoctoral Fellowship call.

Projects & Collaborations

Project Leading

- PRINNEVOT: Towards Primate-like Artificial Neural Networks for Visual Object Tracking 2024 - 2027
Funder: Horizon Europe MSCA Postdoctoral Fellowship (Global Fellowship), European Commission. Amount: 256 442,88€

Project Participation

- TEAM: Tracking in Egovision for Applied Memory 2023 - 2025
Funder: PRIN 2022 PNRR – Italian Ministry for University and Research
- EXTRA-EYE: Egocentric and eXocentric views for An object-level human bEhavior analySis and undErstanding through tracking in complex spaces 2023 - 2025
Funder: PRIN 2022 – Italian Ministry for University and Research
- Next Generation AI-driven Winter Sports Analytics 2021 - 2023
Funder: Organizing Committee of the European Youth Olympic Festival (EYOF) 2023
- Advanced Hardware/Software Components for Integrated/Embedded Vision Systems 2018 - 2021
Funder: EU H2020 MSCA Innovative Training Network
- Billet Ovality Prediction 2021
Funder: SMACT Centro di Competenza del Triveneto
- New class of intelligent robotic imaging system for keyhole surgeries 2018 - 2019
Funder: Australia-India Strategic Research Fund

Technology Transfer

- “*WE-SAFE: Proactive Risk Assessment*” 2022
Funder: Call4Solutions Smart Road Anas, Foundation Open Factory, ELIS, Area Science Park, Anas

Collaborations

- York University, Toronto, Ontario, Canada 2023 – pres
Collaboration with the group led by Prof. Kohitij Kar on research in computer vision and visual neuroscience.
- University of Alcalá, Alcalá de Henares, Madrid, Spain 2022 – 2023
Collaboration with the group led by Prof. Alfredo Gardel on research in computer vision and machine learning.
- University of Trento, Trento, Italy 2021 - 2023
Collaboration with the group led by Prof. Nicola Conci on the organization of a workshop about computer vision in winter sport domains.
- University of Catania, Catania, Italy 2019 – pres
Collaboration with the group led by Prof. Giovanni Maria Farinella on visual object tracking research in first person vision.
- University of Udine (DPIA), Udine, Italy 2019 – 2022
Collaboration with the group led by Prof. Nicola Baldo on research in machine learning for prediction of the mechanical behavior of asphalts and driving safety.
- Queensland University of Technology, Brisbane, Australia 2018 – 2019
Collaboration with the group led by Prof. Davide Fontanarosa on research in medical image analysis.
- The University of Adelaide, Adelaide, Australia 2018 – 2019
Collaboration with the group led by Prof. Gustavo Carneiro on research in medical image analysis.

Talks & Presentations

Invited Talks

- “*Leveraging Visual Object Tracking on the Slopes*” 2024
Cohere for AI, online
- “*Leveraging Computer Vision and Graphics on Ski Slopes*” 2024
VRAI Lab, Università Politecnica delle Marche
- “*Visual Object Tracking in Machines and Brains*” 2023
DiCarlo Lab, McGovern Institute for Brain Research, MIT
- “*Visual Object Tracking in Machines and Brains*” 2023
VITA Lab, York University
- “*Next-Generation AI-driven Winter Sports Analytics*” 2023
Course on "Sistemi di gestione e analisi dei dati per l'allenamento", University of Udine
- “*Fusing Complementary Trackers for Long-Term Visual Tracking*” 2021
Visual Object Tracking VOT2021 Challenge workshop held at the International Conference on Computer Vision (ICCV) 2021
- “*Siam-U-Net: encoder-decoder siamese network for knee cartilage tracking in ultrasound images*” 2021
AI4US workshop at the IEEE International Conference on Biomedical and Health Informatics (BHI) - International Conference on Wearable and Implantable Body Sensor Networks (BSN)
- “*Learning Visual Tracking from Teachers*” 2020
VRAI Lab, Università Politecnica delle Marche

Paper Presentations

- “*Tracking Skiers from the Top to the Bottom*” 2024
Poster presentation at the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2024.
- “*Visualizing Skiers’ Trajectories in Monocular Videos*” 2023
Spotlight and poster presentations at the CVsports workshop held at the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2023.
- “*Automatic Video-based Reconstruction of the Trajectories performed by Skiers*” 2023
Oral presentation at the International Congress on Science and Skiing (ICSS) 2023.
- “*CoCoLoT: Combining Complementary Trackers in Long-Term Visual Tracking Skiers*” 2022
Oral presentation at the International Conference on Pattern Recognition (ICPR) 2022.
- “*Is First Person Vision Challenging for Object Tracking?*” 2021
Oral presentation at the VOT2021 workshop held at the International Conference on Computer Vision (ICCV) 2021.
- “*Improving MRI-based Knee Disorder Diagnosis with Pyramidal Feature Details*” 2021
Poster presentation at the International Conference on Medical Imaging with Deep Learning (MIDL) 2021.
- “*Tracking-by-Trackers with a Distilled and Reinforced Model*” 2020
Poster presentation at the Asian Conference on Computer Vision (ACCV) 2020.
- “*An Exploration of Target-Conditioned Segmentation Methods for Visual Object Trackers*” 2020
Oral presentation at the VOT2020 workshop held at European Conference on Computer Vision (ECCV) 2020.
- “*Visual Tracking by means of Deep Reinforcement Learning and an Expert Demonstrator*” 2019
Spotlight and poster presentations at the VOT2019 workshop held at the International Conference on Computer Vision (ICCV) 2019.

Service & Outreach Activity

Conferences

- International Conference on Computer Vision Theory and Applications (VISAPP) 2025
Area Chair
- International Conference on Computer Vision Theory and Applications (VISAPP) 2024
Area Chair
- International Conference on Image Analysis and Processing (ICIAP) 2023
Publicity and Social Media Chair

Workshops

- 3rd Workshop on Computer Vision for Winter Sports
at the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2025
General Chair
- AI for Industry
at Ital-IA 2024 Convegno Nazionale CINI sull'Intelligenza Artificiale
General Chair
- 2nd Workshop on Computer Vision for Winter Sports
at the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2023
General Chair
- 1st Workshop on Computer Vision for Winter Sports
at the IEEE/CVF Winter Conference on Applications of Computer Vision (WACV) 2022
General Chair

Tutorials

- “Video Object Tracking: a Deep Learning Perspective”
at the International Conference on Intelligent Environments (IE) 2023
Leading Organizer
- “Deep Learning for Visual Object Tracking”
at the International Conference on Image Analysis and Processing (ICIAP) 2022
Leading Organizer

Challenges

- “EPIC-KITCHENS TREK-150 Object Tracking Challenge” at the EPIC workshop
held at the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2024
Leading Organizer
- “EPIC-KITCHENS TREK-150 Object Tracking Challenge” at the EPIC workshop
held at the IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR) 2023
Leading Organizer

Demos

- “Leveraging Computer Vision on the Ski Slopes”
at the European Conference on Computer Vision (ECCV) 2024
Organizer
- “Ultrasound-Guided Autonomous Knee Arthroscopy”
at the International Conference on Robotics and Automation (ICRA) 2018
Contributor

Editorial & Review Activity

Editorial Activity

- The Visual Computer (Springer) 2023 - pres
Associate Editor
- Special issue on “Object Detection based on Vision Sensors and Neural Network” on Sensors (MDPI) 2023
Guest Editor

Reviewer for Journals

- IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI), 2021 – 2022
- International Journal of Computer Vision (IJCV), 2022 - 2024
- IEEE Transactions on Cybernetics (TCyb), 2022
- IEEE Robotics and Automation Letters (RA-L), 2020, 2023
- Robotics and Autonomous Systems, 2023
- Medical Image Analysis (MedIA), 2021, 2023
- IEEE Transactions on Medical Imaging (TMI), 2022
- Pattern Recognition (PR), 2021, 2023

- IEEE Transactions on Multimedia (TMM), 2022
- Machine Vision and Applications (MVA), 2023
- Journal of Visual Communication and Image Representation (JVCI), 2019 – 2020
- Knowledge-Based Systems (KNOSYS), 2020, 2022 - 2023
- IET Computer Vision, 2022
- IET Image Processing, 2021
- Journal of Science and Medicine in Sport Plus, 2023

Reviewer for Conferences

- IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2022 – 2025
- IEEE/CVF International Conference on Computer Vision (ICCV), 2023
- European Conference on Computer Vision (ECCV), 2022, 2024
- Asian Conference on Computer Vision (ACCV), 2024
- IEEE/CVF Winter Conference on Applications of Computer Vision (WACV), 2021, 2022, 2024
- British Machine Vision Conference (BMVC), 2023
- International Conference on Pattern Recognition (ICPR), 2020, 2022
- IEEE International Conference on Robotics and Automation (ICRA), 2021, 2023, 2025
- Medical Imaging with Deep Learning Conference (MIDL), 2021, 2022

Technical Program Committee Membership

- 12th International Workshop on Assistive Computer Vision and Robotics at ECCV 2024
- International Workshop on Distributed Smart Cameras at ECCV 2022 and ICCV 2021
- AI City Challenge workshop at CVPR 2021

Teaching

Institutions: UNIUD - University of Udine, UNICT - University of Catania, UAH - University of Alcalá, AAU – Alpen Adria Universität

Course Leader

- Programmazione (63h, 9 CFU) UNIUD
BSc Course in Multimedia Science and Technology, A.Y. 23/24
- Artificial Vision (12h) AAU
MSc Course in Information and Communications Engineering, A.Y. 23/24
- Sistemi di Analisi ed Elaborazione delle Informazioni per l'Allenamento (24h, 3 CFU) UNIUD
BSc Course in Sport Science, A.Y. 23/24
- Deep Learning for Computer Vision (10h) UNIUD
PhD Course in Computer Science and Artificial Intelligence, A.Y. 22/23
- Deep Learning for Object Localization in Images and Videos (9h) UAH
Doctoral Course, A.Y. 22/23

Teaching Assistant

- Machine Learning and Applications (1 h) UAH
Doctoral Course, A.Y. 22/23

- Image/Video Acquisition and Processing (1.5 h) UNIUD
PhD Course in Industrial and Information Engineering, A.Y. 21/22, 22/23
- Computer Vision (12 h) UNIUD
MSc Course in Computer Science, A.Y. 20/21, 21/22, 22/23, 23/24
- Machine Learning (20 h) UNIUD
MSc Course in Multimedia Communication and Information Technology, A.Y. 19/20, 20/21, 21/22, 22/23, 23/24
- Machine Vision (12 h) UNIUD
MSc Course in Multimedia Communication and Information Technology, A.Y. 19/20, 20/21

Guest Lectures

- *“Visual Object Tracking: from Traditional to Deep Learning methods”* 2023
MSc Course on “Deep Learning”, UNICT
- *“How to use Deep Neural Networks for Visual Tracking”* 2022
MSc Course on “Deep Learning”, UNICT
- *“Deep Reinforcement Learning for Robot Control”* 2022, 2023
International Summer School on Artificial Intelligence AI-DLDA, Udine, Italy
- *“Deep Learning for Visual Object Tracking”* 2022
International Summer School on Artificial Intelligence AI-DLDA, Udine, Italy
- *“Deep Reinforcement Learning for Control”* 2020, 2021
International Summer School on Artificial Intelligence AI-DLDA, Udine, Italy
- *“Deep Learning for Visual Object Tracking”* 2021
Master in Intelligence and ICT, UNIUD
- *“The MNIST Digit Recognition Challenge”* 2019
Piano Lauree Scientifiche, ISIS A. Malignani, Udine, Italy

Student Supervision

- *“Single-agent Pre-training in a Multi-agent Collaborative Environment”*
Devis Salierno, UNIUD, MSc Thesis, A.Y. 2023/2024

Student Co-supervision

- *“SeismoIoT: Un prototipo IoT per il monitoraggio dei siti di stoccaggio di gas naturale”*
Paolo Bernardi, UNIUD, BSc Thesis, A.Y. 2022/2023
- *“Stima della posa 3D per lo sci alpino con tecniche di computer vision”*
Andrea Marcon, UNIUD, BSc Thesis, A.Y. 2022/2023
- *“Sistema di virtualizzazione su piattaforma embedded per l’esecuzione di algoritmi di intelligenza artificiale”*
Ethan Carena, UNIUD, BSc Thesis, A.Y. 2021/2022
- *“Algoritmi di Deep Learning per il Long-Term Tracking”*
Kristian Simonato, UNIUD, MSc Thesis, A.Y. 2019/2020
- *“Split-and-Merge Tracking: un nuovo problema di tracciamento”*
Mattia Di Giusto, UNIUD, MSc Thesis, A.Y. 2019/2020

Skills

Soft Skills

– Critical Thinking, Self-Confidence, Autonomy, Flexibility, Team Working

Languages

– Italian (mother tongue), English (C1, IELTS certificate), German (B1, Goethe certificate)

Programming

– Python, MATLAB, C, C++, Java, Swift, Haskell, Prolog, PHP, HTML, JavaScript

Frameworks

– PyTorch, TensorFlow, Keras, OpenCV, Kornia, Scikit

Il sottoscritto Matteo Dunnhofer, consapevole che le dichiarazioni false comportano l'applicazione delle sanzioni penali previste dall'art. 76 del D.P.R. 445/2000, dichiara che le informazioni riportate in questo curriculum vitae corrispondono a verità.

Udine, 7th November 2024

