

Umberto Michieli

📍 Padova 35129, Italy
☎ +39 3478602319
✉ umberto.michieli@dei.unipd.it
📄 [umbertomichieli.github.io](https://github.com/umbertomichieli)
📄 [umberto.michieli](https://scholar.google.com/citations?user=umberto.michieli)
📄 [Umberto Michieli](https://www.linkedin.com/in/UmbertoMichieli)
📅 Date of birth: 28/11/1994



I am a Computer Vision and Deep Learning enthusiast and my research goal is to contribute to the continual adaptation process of AI into everyday life.

Last Update: November 2, 2020.

Education

- 2018–2021 **Ph.D. in Information Engineering, University of Padua.**
(expected) Research topic: "Knowledge Transfer Techniques for Semantic Segmentation".
Supervisor: Pietro Zanuttigh
- 2016–2018 **M. Sc. in Telecommunication Engineering, University of Padua.**
Grade: 110/110 Summa cum Laude
Thesis: "Link Prediction on Real and Synthetic Complex Networks"
- 2013–2016 **B. Sc. in Information Engineering, University of Padua.**
Grade: 110/110 Summa cum Laude
Thesis: "Correlation and Coherence Analysis between EEG and EMG Signals".
- 2008–2013 **High School Diploma, Liceo Scientifico Giorgione, Castelfranco Veneto.**

Work Experience

- Sep. 2020 – May 2021 **Intern at Samsung Research UK, Research Engineer on Artificial Intelligence.**
Supervisor: Mete Ozay
- Feb. – Jul. 2018 **Visiting Researcher at Technische Universität Dresden.**
Experimental research on link prediction on real and synthetic complex networks.
Supervisor: Carlo Vittorio Cannistraci
- 2018-20 **Teaching Assistant.**
Machine Learning (18/19 and 19/20), M. Sc. course
Computer Vision (18/19), M. Sc. course
- Reviewer.**
- Elsevier Information Fusion (INFFUS)
 - IEEE Transactions on Multimedia (T-MM)
 - IEEE Transactions on Emerging Topics in Computing (T-ETC)
 - IEEE Transactions on Intelligent Vehicles (T-IV)
 - IEEE Transactions on Neural Networks and Learning Systems (T-NNLS)
 - ACM Transactions on Multimedia Computing, Communications, Applications (TOMM)
 - MDPI Remote Sensing
 - CVPR Workshop on Continual Learning
 - ECCV Workshop on Transferring and Adapting Source Knowledge
 - ICML Workshop on Continual Learning
 - ICPR
 - ICASSP
 - CPHS
 - BGM
- Seasonal Schools, AI-DLDA2020, REGML2020, GTTI2020, ICVSS2019, GTTI2019, CMMRS2018.**

Fellowships and Awards

- 2020 **Collaborator of SEED project "Semantic Segmentation in the Wild" (EUR 33K).**
- Aug. 2018 Selected and awarded a fellowship from "The Cornell, Maryland, Max Planck Pre-doctoral Research School" (CMMRS).
- Jun. 2018 Fellowship by Technische Universität Dresden to attend NetSci 2018.
- 2018 Erasmus fellowship at Technische Universität Dresden.
- 2018 Scholarship grant "Mille e una lode" for merit by University of Padova.

Personal Skills

Languages

- Italian **Mother Tongue**
- English **C1 level (Advanced user)**
- Spanish **A2 level (Basic user)**

Computer skills

- Programming and scripting with different languages: python, MATLAB, java, C++, bash, batch
- Deep learning frameworks: Tensorflow, Pytorch, Keras
- Data science toolkits: Jupyter Notebooks, Pandas, Scikit-learn
- Discrete event network simulator ns-3
- Typesetting: \LaTeX

Communication and Managerial Skills

Supervision, I have co-supervised 11 M. Sc. thesis, and 3 B. Sc. thesis. Many works were published in international peer-reviewed conferences and journals.

Team Work, I worked in research teams with people from different cultural backgrounds, both on site and remotely.

Project Management, I am pre-enrolled at AICQ SICEV "Associated Project Manager" Register. I was finalist of *Accenture Innovation Business Game 2017*.

Publications

Journals

- [1] U. Michieli and P. Zanuttigh, "Knowledge Distillation for Incremental Learning in Semantic Segmentation," *Submitted to the Elsevier Journal on Computer Vision and Image Understanding (CVIU)*, vol. 5, no. 3, pp. 508–518, 2020.
- [2] M. Toldo, U. Michieli, G. Agresti, and P. Zanuttigh, "Unsupervised Domain Adaptation for Mobile Semantic Segmentation based on Cycle Consistency and Feature Alignment," *Image and Vision Computing (IMAVIS)*, 2020.
- [3] M. Toldo, A. Maracani, U. Michieli, and P. Zanuttigh, "Unsupervised Domain Adaptation in Semantic Segmentation: a Review ," *Technologies*, vol. 8, no. 35, 2020.
- [4] M. Mel, U. Michieli, and P. Zanuttigh, "Incremental and Multi-Task Learning Strategies for Coarse-to-Fine Semantic Segmentation," *Technologies, special issue on Computer Vision and Image Processing Technologies*, vol. 8, no. 1, 2020.
- [5] U. Michieli, M. Biasetton, G. Agresti, and P. Zanuttigh, "Adversarial Learning and Self-Teaching Techniques for Domain Adaptation in Semantic Segmentation," *IEEE Transactions on Intelligent Vehicles (T-IV)*, 2020.

Conferences

- [6] M. Toldo, U. Michieli, and P. Zanuttigh, "Unsupervised Domain Adaptation in Semantic Segmentation via Orthogonal and Clustered Embeddings," *Winter Conference on Applications of Computer Vision (WACV)*, 2021.
- [7] U. Michieli, E. Borsato, L. Rossi, and P. Zanuttigh, "GMNet: Graph Matching Network for Large Scale Part Semantic Segmentation in the Wild," *European Conference on Computer Vision (ECCV), Glasgow (UK)*, 2020.
- [8] T. Spadotto, M. Toldo, U. Michieli, and P. Zanuttigh, "Unsupervised Domain Adaptation with Multiple Domain Discriminators and Adaptive Self-Training," *International Conference on Pattern Recognition (ICPR), Milan (Italy)*, 2020.
- [9] U. Michieli and P. Zanuttigh, "Incremental Learning Techniques for Semantic Segmentation," *International Conference on Computer Vision (ICCV), Workshop on Transferring and Adapting Source Knowledge in Computer Vision (TASK-CV), Seoul (South Korea)*, 2019.
- [10] U. Michieli, M. Camporese, A. Agiollo, G. Pagnutti, and P. Zanuttigh, "Region Merging Driven by Deep Learning for RGB-D Segmentation and Labeling," *International Conference on Distributed Smart Cameras (ICDSC), Trento (Italy)*, 2019.
- [11] M. Biassetton, U. Michieli, G. Agresti, and P. Zanuttigh, "Unsupervised Domain Adaptation for Semantic Segmentation of Urban Scenes," *Conference on Computer Vision and Pattern Recognition (CVPR), Workshop on Autonomous Driving (WAD), Long Beach (US)*, 2019.
- [12] U. Michieli and L. Badia, "Game Theoretic Analysis of Road User Safety Scenarios Involving Autonomous Vehicles," *IEEE International Symposium on Personal, Indoor and Mobile Radio Communications (PIMRC), Bologna (Italy)*, pp. 1377–1381, 2018.
- [13] G. Cisotto, U. Michieli, and L. Badia, "A coherence study on EEG and EMG signals," *IEEE Global Wireless Summit (GWS), Aarhus (Denmark)*, pp. 372–376, 2016.

Book Chapters

- [14] U. Michieli, M. Toldo, and P. Zanuttigh, "Unsupervised Domain Adaptation and Continual Learning in Semantic Segmentation," *Advanced Methods and Deep Learning in Computer Vision, Elsevier*, 2021 (scheduled).

I hereby authorize the processing of the personal data contained in this CV in compliance with the Italian Personal Data Protection Code (Legislative Decree no. 196 of 30 June 2003).