Curriculum Vitae: Federico Figari Tomenotti

Personal information

📍 Genova, Italy

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💬 Skype federico.figaritomenotti

Linkedin https://www.linkedin.com/in/federico-figari-tomenotti-a18825145

Personal Page https://fede1995.github.io/

Sex Male | Date of birth 14/04/1995 | Nationality Italian

Position preferred: Earth Observation Engineer / ML Engineer/ R&D Engineer

Work Experience

November 2023 – Present

RESEARCH FELLOW *at Machine Learning Genoa Center (MaLGa) - Università degli Studi di Genova*

Topics of interest: **Human Motion Forecasting, Graphs Networks, Deep Learning for Weather Forecast**

Master Students supervision: Bouzid I., Piazza A.

Projects: RAISE, Cognitively-inspired architectures for human motion understanding (AFOSR founded)

January 2023 – March 2023

VISITING RESEARCHER *at Imagine Lab at Ecole des Ponts, ParisTech*

Supervisor: prof. Gul Varol

Main topic: Semantic Action Anticipation and Prediction using deep learning architectures.

2021-2024 Academic Years

TEACHING ASSISTANT *at DIBRIS Università degli Studi di Genova*

Courses: *Deep Learning, Computer Vision, Signal Processing*

July 2020 – November 2020

ICT SOLUTION ARCHITECT PRE-SALES & DELIVERY at *TIM, Gruppo Telecomitalia. - Genova, Italy*

Position: Full-time, permanent.

Activities: IT Project Engineer focused on Cloud solutions, Cloud design and migration.

Role: Pre-sales design of customised IT solutions.

September 2019 – December 2019

ERASMUS+ RESEARCH INTERNSHIP at *UiT The Arctic University of Norway. -* Tromsø, Norway.

Thesis research: Remote sensing for Earth Observation, deep learning.

Thesis: "*Heterogeneous Change Detection on Remote Sensing Data*".

Activities: problem formulation, code development and experiments, submission of research paper at IGARSS$_{2020}$

September 2017

UNDERGRADUATE INTERNSHIP at *OnAir srl*, Genoa Italy.

Activities: Matlab coding for a case study problem on operative research.

Sector: R&D, machine learning, artificial vision, operative research.

Education

November 2020 – May 2024

PHD STUDENT IN MACHINE LEARNING & COMPUTER VISION *at Machine Learning Genoa Center (MaLGa)*

PhD in Computer Science and Systems Engineering at *Università degli Studi di Genova*

Supervisor: prof. Nicoletta Noceti

Main topic: **human motion understanding, and human activity recognition-prediction with cognitive methods**.

Other topics of interest: **graph networks, anticipation, action classification**

Master Students supervision: Mouwad C., Bouzid I., Piazza A.

Research Projects involved in : Cognitively-inspired architectures for human motion understanding, RAISE, StarwayToElders

September 2017 – March 2020

MASTER'S DEGREE IN TELECOMMUNICATIONS ENGINEERING awarded cum laude (grade 110 lode/110)
(LM-27): Multimedia and Internet Engineering. *Università degli Studi di Genova*.

Erasmus+ Internship at UiT The Arctic University of Norway.

Thesis: Heterogeneous Change Detection on Remote Sensing Data with Self-Supervised Deep Canonically Correlated Autoencoders (link to thesis)

Main subjects covered in Master:

- Image Processing and Recognition
- Mathematical Methods and Operations Research

- Remote Sensing and Satellite Images
- Array Signal Processing (Underwater Acoustic and Acoustic Imaging)

Extra Modules in Master:

- International Development Cooperation
- Public Speaking: public and business communication

September 2014 – October 2017

BACHELOR'S DEGREE IN ELECTRONICS ENGINEERING awarded cum laude (grade 110 lode/110): (L-8)
Electronics Engineering and Information Technology. *Università degli Studi di Genova*.

*September 2016 – December 2016 **Erasmus+** at University College Cork, Ireland.*

Personal Skills

Languages: **Italian**, **English** (**C1**, Cambridge Advanced in English Certificate), **French** (base user).

Application software: Microsoft Office Suite, Matlab.

Programming languages: Assembly, C, C++, Python (**TensorFlow, Keras, Pytorch**), **Matlab**,.

Software and Hardware: Arduino (or microcontroller) implementation, Linux user.

Communication: Good communication skills acquired in teamwork in university research projects and working as a private teacher for high-school students.

Organisational skills: Optimal organisational skills acquired planning and organising trips, voyages and activities for groups of 30/50 people as head of volunteers in parish activities. Knowledge of organising my own work, which has always been reflected in my student life scheduling exams and internships, and completing all on time.

Publications

Tomenotti, F. F., Luppino, L. T., Hansen, M. A., Moser, G., & Anfinsen, S. N. (2020). Heterogeneous change detection with self-supervised deep canonically correlated autoencoders. In *IGARSS 2020-2020 IEEE International Geoscience and Remote Sensing Symposium* (pp. 680-683). IEEE. [link]

Cantarini, G., Tomenotti, F. F., Noceti, N., & Odone, F. (2022). HHP-Net: A light Heteroscedastic neural network for Head Pose estimation with uncertainty. In *Proceedings of the IEEE/CVF Winter Conference on Applications of Computer Vision* (pp. 3521-3530). [link]

Tomenotti, F. F., Noceti, N., & Odone, F. (2024). Head pose estimation with uncertainty and an application to dyadic interaction detection. *Computer Vision and Image Understanding, vol. 243, 103999.* [link]

Tomenotti, F. F., Noceti, N. (2024). Anticipation through Head Pose Estimation: a preliminary study. *Presented at the workshop on advancing Group Understanding and robots' adaptive behavior (GROUND), held at the Robotics Science and Systems (RSS) Conference, 2024 .* [link]

Tomenotti, F. F., Noceti, N. (2024). MOSAIC: Skeleton-based human motion recognition with compositional representations. Accepted as *Oral Presentation Workshop on Human-inspired Computer Vision, ECCV 2024*.

Conference Presentations

WACV2022 - HHP-Net: A light Heteroscedastic neural network for Head Pose estimation with uncertainty.

Scientific Reviewer for:

- Pattern Recognition Journal, Elsevier
- Transactions on Geoscience and Remote Sensing Journal, IEEE
- Computer Vision and Image Understanding, Elsevier

Lectures:

2-hour lecture at Maia (Microsoft Artificial Intelligence Academy): "Applications: motion analysis"

Prizes

"Premio Nazionale di Laurea "Eugenio Zilioli" - 16a Edizione (2020)" - Best Italian Master Thesis in Remote Sensing, edition 2020.

Interests and hobbies

Volunteering with the homeless and children	Photography and Editing
Science enthusiast	Trekking and sports lover
Green economy lover	