



WORK EXPERIENCE

02/04/2024 – CURRENT Lecce, Italy

- Junior Research Associate CMCC Foundation (Euro-Mediterranean Center on Climate Change)

As Junior Research Associate, within the Advanced Scientific Computing (ASC) division of CMCC, I'm involved in the development of data management solutions for handling large and heterogeneous climate/environmental data sources through different Python scientific libraries and tools, in addition to other related data management and software development tasks.

01/12/2023 – 29/02/2024 Lecce, Italy

- Visiting period for research activity CMCC Foundation (Euro-Mediterranean Center on Climate Change)

The visiting period carried out within the Advanced Scientific Computing (ASC) Division of the Euro-Mediterranean Center on Climate Change (CMCC Foundation) aimed the continuation of the activity undertaken during the thesis internship and related to the design and development of Vision-Transformer-based architectures for downscaling climate variables.

During this period I dealt with weather and climate data formats, such as netCDF and Zarr, gaining also experience in using the CMCC's Data Delivery System (DDS) in order to gather data used for Machine Learning (ML) applications. For training such ML models in a distributed fashion I also leveraged the supercomputing facilities at CMCC (the Juno cluster).

23/10/2023 – 30/11/2023 Lecce, Italy

- Research Intern CMCC Foundation (Euro-Mediterranean Center on Climate Change)

The internship carried out within the Advanced Scientific Computing (ASC) Division of the Euro-Mediterranean Center on Climate Change (CMCC Foundation) aimed at the study of suitability of Deep Learning approaches, such as Vision-Transformers, for downscaling climate variables.

EDUCATION AND TRAINING

17/12/2020 – 28/02/2024 Lecce, Italy

- Computer Engineering Università del Salento dip. Ingegneria dell'Innovazione

Final grade 110/100 | **Thesis** Vision transformer for spatial downscaling: A case study over Italy

17/09/2011 – 03/11/2020 Lecce, Italy

- Ingegneria dell'Informazione Università del Salento dip. Ingegneria dell'Innovazione

Thesis Design and implementation of a middleware based on RFID technology for traceability of waste

2006 – 2011 Lecce, Italy

- Diploma di Maturità Industriale I.T.I.S. "E. Fermi"

LANGUAGE SKILLS

MOTHER TONGUE(S): Italiano

Other language(s):

English

Listening B1

Spoken production B1

Reading B1

Spoken interaction B1

Writing B1

Levels: A1 and A2: Basic user; B1 and B2: Independent user; C1 and C2: Proficient user

DIGITAL SKILLS

Amazon AWS Cloud | Data formats: csv, JSON, NetCDF | Parallel computing in HPC environment | Machine Learning Frameworks (TensorFlow, Pytorch) | Good Experience with numpy, xarray and other scientific libraries and tools | Very good knowledge of the following programming languages: C/C++, Python, Java, | Excellent Knowledge of the Linux Operating System | Good Knowledge of the Docker and Git tools | Good Knowledge of Mysql and Mongo Databases | Experience with Neo4J graph database | Good understanding of Kubernetes

ORGANISATIONAL SKILLS

Organizational skills

Good team work skills obtained during the development of university projects and especially during the internship periods in CMCC

TRATTAMENTO DEI DATI PERSONALI

Trattamento dei dati personali

Autorizzo il trattamento dei dati personali contenuti nel mio curriculum vitae in base all'art. 13 del D. Lgs. 196/2003 e all'art. 13 del Regolamento UE 2016/679 relativo alla protezione delle persone fisiche con riguardo al trattamento dei dati personali.