

# CURRICULUM VITAE



## PERSONAL INFORMATION

Surname, Name **MORINI MADDALENA**  
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Nationality Italian

Date of birth 20-11-1997

## EDUCATION AND TRAINING

- Dates (from – to) 1-11-2022- on going.
- Name and type of organisation providing education Ph.D. Course in *Cultural and Environmental Heritage*, University of Bologna
- Principal subjects covered PhD student at the University of Bologna studying new methods for biochar valorization (mainly as an adsorbent). Activities will include the use of biochar for contaminant filtration from wastewater; the use of biochar for the remediation of contaminated soils; the design and production of new composite materials containing biochar.
- Title of qualification awarded Ph.D. in Cultural and Environmental Heritage
- Dates (from – to) 2019-2022
- Name and type of organisation providing education M.Sc. Course in Environmental Assessment and Management, curriculum Climate KIC, University of Bologna
- Principal subjects covered The Course in Environmental Assessment and Management offers mandatory classes on Chemical Analysis of Environmental Quality, Environmental Legislation, Land Management Principles, Multivariate Statistical Analysis, Physiology Applied to The Environment, Ecological Methods for the Analysis and the Management of the Environment, Environmental Hydrology, Environmental, Political and Economic Management Systems, Prevention and Control of Environmental Impact, plus an Interdisciplinary practical Laboratory. Several other subjects can be chosen by the students on Botanic, Geochemistry, Geophysics, Soil Science, Pollutants. During the period of my master thesis, I spent one month at the Fraunhofer UMSICHT Institute in Sulzbach-Rosenberg (Germany) to be familiar with and observe how a large-scale pyrolysis facility coupled with a reforming step (TCR technology) produces biochar, bio-oil and syngas. I gained knowledge on how to handle system issues and evaluate the quality of various output products, with laboratory measurements on GC-MS and CHNS.
- Title of qualification awarded M.Sc. in Environmental Assessment and Management
- Final score 110 cum laude

- Dates (from – to) 2016-2019
- Name and type of organisation providing education B.Sc. Course in Environmental Sciences, University of Bologna
- Principal subjects covered The Course in Environmental Sciences offers a broad teaching plan, with the aim of creating an expert able to study the environment with a multidisciplinary approach. Beyond the basic scientific subjects, such as mathematics, chemistry, geology, ecology and physics, I have attended characterizing courses, such as Renewable Energies and Energy Management, Environmental Chemistry, Eco-compatible Development and Anthropogenic Alterations, Structure and Dynamics of the Atmosphere and the Ocean.
- Title of qualification awarded B.Sc. in Environmental Sciences
- Ranking final score: 103/110
- Dates (from – to) 2011-2016
- Name and type of organisation providing education Agricultural Technical Institute “Antonio Zanelli”, major in environmental management.
- Principal subjects covered Agronomy, livestock production, environmental and food chemistry, biotechnology, entomology, microbiology, applied English, mathematics, Italian, physics and earth sciences. Throughout these academic years I got the chance to conduct activities on the school farm. I even learned how to make grafts, prune fruit trees and vines, and do the tasks required to care for the farm’s animals.
- Title of qualification awarded Technical Diploma.

## SCIENTIFIC ACTIVITY

I received my degree in environmental sciences in 2019 and wrote my thesis on the Ravenna municipality's path, the Covenant of Mayors, and the C.L.E.A.R. method (City and Local Environmental Accounting and Reporting). In this work I followed the action plan put forth by the city of Ravenna to carry out its sustainable energy plan. I focused on the expected number of actions and associated tonnes of CO<sub>2</sub>eq saved for each intervention area (public lighting, spatial planning, urban green development, local generation of energy from renewable sources, etc.). During both the bachelor and the first year of the master course I attended various laboratories on chemistry, biology, physics, pedology, ecology, physiology and other scientific fields. As I was writing my master thesis, I spent one month at the Fraunhofer UMSICHT Institute, Sulzbach-Rosenberg branch, Germany, where I worked on the experimental part of my master thesis within the H2020 European project TO-SYN-FUEL ([www.tosynfuel.eu](http://www.tosynfuel.eu)). I began working as a research associate at the University of Bologna's Environmental Management and Research group in May 2022, where I had the opportunity to approach different analytical instruments, including a gas chromatograph coupled with a mass spectrometer (GC-MS), a physisorbimeter for determining the specific surface area of porous materials, a CHNS for elementary analysis, and muffle furnaces for producing carbons from various materials. During this research fellowship, I began investigating biochar as a filter material to get a great removal capacity of primarily organic and halogenated pollutants from wastewater. In November 2022 I began my PhD in Cultural and Environmental Heritage in which I started to characterize activated carbons in order to create a second-generation carbon obtained by biological waste with the same properties and adsorption performances as activated carbons.

## WORK EXPERIENCE

- Dates (from – to) 01/05/2022 – 01/11/2022
  - Name and address of employer University of Bologna
  - Type of sector Environmental science
    - Occupation and position held Research fellow
  - Main activities and responsibilities Remediation of wastewater with biochar.  
Batch tests with real water sample contaminated by organic and halogenated pollutants. The aim was to assess the sorption ability of biochar produced by woody biomass and mix of biomass and industrial wastes.
  
- Dates (from – to) 01/11/2021 - 01/12/2021
  - Name and address of employer Fraunhofer UMSICHT Institute, Sulzbach-Rosenberg, Germany
  - Type of sector Environmental Sciences
    - Occupation and position held Internship trainee
  - Main activities and responsibilities Maintenance and operational control of the TCR-500.  
Supervision of the management program that regulates the plant's entering and outgoing flows.  
Examination and quality assurance of products exiting from the plant.
  
- Dates (from – to) 01/02/2019 - 01/06/2019
  - Name and address of employer Comune di Ravenna
  - Type of sector Scientific dissemination
    - Occupation and position held Support to the activities of the "Action Plan for Sustainable Energy" (Piano di Azione per l'Energia Sostenibile) initiative.
  - Main activities and responsibilities Study and measurement of the decrease in CO<sub>2</sub>eq emissions as the result of various key activities, including infrastructure construction, urban green development, spatial planning, urban lighting, and others.
  
- Dates (from – to) 01/05/2017 – now
  - Name and address of employer Rifugio Monte Orsaro, Villa Minozzo (RE).
  - Type of sector Restoration
    - Occupation and position held Waitress, bartender
  - Main activities and responsibilities Ensure good customer service.  
I usually work in this place for one or two weeks in August. If it's a busy time of year, I start at 8:00 and finish at 00:00 or 1:00. In fact, it's crucial to retain efficiency and patience.
  
- Dates (from – to) Oct 2019 – Feb 2020
  - Name and address of employer Leblon S.r.l, Via Matteotti, Ravenna (RA).
  - Type of sector Clothing store
    - Occupation and position held Shop assistant
  - Main activities and responsibilities Sales manager, relationship with customers and suppliers, inventory, warehouse and goods management.
  
- Dates (from – to) 01/06/2014 – 01/08/2014
  - Name and address of employer Bar G.R.A.F. , Via Emilia all'ospizio, 29, Reggio Emilia (RE).
  - Type of sector Bar
    - Occupation and position held Bartender
  - Main activities and responsibilities Sales manager, relationship with customers, tasting room management.

- Dates (from – to) 01/05/2014 – 31/05/2014
- Name and address of employer Day centre “Casa Ferrari”, via Gattalupa 5/3, Reggio Emilia (RE).
- Type of sector Social assistance
- Occupation and position held Assistance for people with disabilities
- Main activities and responsibilities Creative activities for people inside the house.

## **OTHER SKILLS AND COMPETENCE**

MOTHER TONGUE **ITALIAN**

OTHER LANGUAGE **ENGLISH**  
Level B2

### **RELATIONAL CAPACITIES AND COMPETENCES**

Thanks to the wide range of clients I dealt with when I first started working at the Monte Orsaro shelter, I improved my communication skills. I grew quite close to everyone on staff and mastered how to handle really long workdays. At the high school, I have established excellent relationships with most of the professors and classmates. In fact, some of my ex-classmates are right now very important people in my life. I had the chance to work in groups on various projects during my master's degree; the work has always been stimulating, and the outcomes very good.

### **ORGANIZATIONAL SKILLS**

I am well-organized because I attend both sports practices and classes simultaneously. Self-organization has always been crucial to my success as a worker.

DRIVING LICENSE Italian B (cars)

### **COMPUTER SKILLS AND COMPETENCES**

Microsoft Office Suite, QGIS, GaBiEducational, Vensim.