

# Sofia Costanzini

Environmental Engineer



## contact

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more.it

## languages

italian mother tongue  
english intermediate

## programming

♥ Python, SQL

## education

- 2013–2017 **PhD** in High Mechanics and Automotive Design & Technology UNIMORE,  
Modena  
*Implementation of a Python-GIS tool for the evaluation of the population exposure to pollutants emitted by complex areal sources*  
I programmatically developed some models for the estimation of the population exposure to some environmental factors to be used in a GIS (Geographic Information Systems) environment. Activity carried out in partnership with the CREAGEN epidemiological team of UNIMORE.
- 2009–2012 **Master degree** in Environmental Engineering UNIMORE, Modena  
*110/110 cum laude*
- 2006–2009 **Bachelor degree** in Environmental Engineering UNIMORE, Modena
- 2001–2006 **Technical Expert** in Electronics and Telecommunications ITI Enrico Fermi,  
Modena

## experience

- 2018–Now **Department of Engineering Enzo Ferrari** UNIMORE, Modena  
*Postdoctoral Research Fellow*  
Development of a SQL-GIS database for the management of monitoring data of high contaminated sites.
  - Database PostgreSQL / PostGIS;
  - QGIS;
  - Development of models for the exposure of workers (QGIS Processing Script).Activity framed into an INAIL (Italian national institute for insurance against accidents at work) project in the field of contaminated sites remediation.
- 9/2011-3/2012 **ENEA** (Italian national agency for new technologies, energy and sustainable economic development) Bologna  
*Internship*  
Development of a methodology for the assessment of the land degradation in Iraq by the use of remote sensing imagery and GIS data.
- 9/2005-10/2005 **Phema SNC** Savignano sul Panaro  
*Internship*  
CAD designer

## awards

- 2011 **Best student** UNIMORE, Modena

## trainings

- 2015      **MAIN Expert**      AESS Agency for energy and sustainable development, Modena  
MAIN Certificate, training course on Intelligent building materials: Cool Roofs and Cool Pavements
- 2013      **C language**      CINECA, Milan  
Introduction to C programming language for scientific applications
- 2013      **Python language**      CINECA, Milan  
Python for computational science

## communication skills

- 2012–2018      **Oral presentation and posters**      European and Italian conferences and workshops  
I presented the research I conducted in:
- Remtech Expo, Ferrara;
  - Training course on remediation of contaminated sites, Ravenna;
  - CEST, Rhodes;
  - SIDISA, Milan;
  - SPIE, Amsterdam and Edinburgh;
  - SIBESA, Natal;
  - ASITA, Riva del Garda.
- 2012–Now      **Teaching**      UNIMORE, Modena  
Laboratory of Environmental Remote Sensing in Civil and Environmental Engineering Bachelor's Degree
- 2018–Now      **Teaching**      Nuova Didactica, Modena  
Teacher for the course IFTS Expert in the monitoring and management of the territory, the environment and energy

## organization skills

- Drafting of European and Italian projects, including budget and time-lines;
- Field work organization and management.

## interests

skiing, music, photography, traveling.

## publications

I co-authored of up to five peer-reviewed scientific articles in International journals.