

Matteo Ghetta

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Work Experience

**December 2016 -
Present**

Freelancer GIS (QGIS)

- Creation of tests to strengthen the Processing plugin of QGIS (Founded by QGIS Italian User Group and private companies)

Jun 2015 – Present

Researcher at Scuola Superiore Sant'Anna Pisa, Italy

- Hydrogeological modeling and spatial object management
- QGIS plugin development. Plugin aim is to perform complex hydrological models with the linking with external software of the USGS (Modflow, MT3DMS, UCODE, SEAWAT)
- Website maintenance (www.freewat.eu)
- GIS teacher and assistant (QGIS)
- Software consultation and problem solving
- Assistance to all project partners in:
 - database management (Spatialite/SQLite)
 - spatial data handling
 - python coding and scripting

Oct 2016

GIS and Data Analysis Teacher (Master in Environmental Sciences)

University of Bologna, Ravenna Campus, Italy

- Handling field collected data and convert it to spatial object
- Database set up (Spatialite, PostGIS)
- Simple and complex statistics (R)
- Spatial data object management, interpolations and geoprocessing
- Map creation

Oct 2015

GIS and Data Analysis Teacher (Master in Environmental Sciences)

University of Bologna, Ravenna Campus, Italy

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- Data management (Libreoffice, R)
 - Simple and complex statistics (R)
 - Spatial data management and maps creations (QGIS)

Mar 2015

Geochemistry Data Management

University of Bologna, Ravenna Campus, Italy

- geochemistry data management and advanced statistical analysis
- geochemical map production

Nov 2014 – Jun 2015

Freelancer in GIS Systems

- Software installation assistance (QGIS)
- Courses teaching (QGIS and R)

Oct 2014

GIS Teacher (Water and coastal management Master)

University of Bologna, Ravenna Campus, Italy

- Teaching QGIS for biological and environmental uses
- From spatial data rudiments to database management
- GIS theory

May 2014 – Oct 2014

Cartographer

Geaprogetti, Cesena, Italy

- Cartographic production for the cycle path Ravenna – Florence
- Spatial data searching and elaborating
- Database management
- Map production

Dec 2013 – Dec 2014

Software assistance and basic software development

Faunalia, Pontedera, Italy

- Preparation of a customized QGIS release for the WHO (World Health Organization, <https://github.com/faunalia/HealthQGIS>)
- Technical assistance for the GIS office of Tuscany Region

Education

2011 – 2014

Master degree in Environmental Sciences (110L)

University of Bologna, Italy – Ravenna Campus

Master thesis: "Hydrogeochemical characterization of Seehausen territory - Bremen".

2013

Erasmus in the Bremen University

University of Bremen, Germany

Preparation of the Master thesis in the hydrogeochemistry.

2006 - 2009

Bachelor degree in Foreign Languages

University of Florence, Italy

Spanish, English, German and basic Russian

Competences

- **Very strong GIS systems competences (QGIS, GRASS, SAGA)**
- **Spatial Database** installation and data management (PostGIS, SpatiaLite)
- **Strong GNU/Linux** experience
- **Statistics software** (R, Matlab)
- **Object oriented languages skills:**
 - **Advanced Python** programming and scripting
 - Basic **Java** competences
 - Basic understanding of **C++ code**
- **QGIS plugin and scripting** (python programming language)
- **WebGis** (Lizmap)
- **Strong software version control knowledge**
 - **git**
 - **git web hosting** (github, gitlab, bitbucket)
- **LaTeX** and **sphinx** strong skills
- **HTML** and **CSS**
- **GIMP** image manipulation
- **Inkscape** vectorial objects creation
- **Static Site Generators** (Pelican, Jekyll, Hugo, github pages)

Languages

Italian, native

English, professional experience

German, professional experience

Spanish, professional experience

Russian, basic knowledge

Affiliations

Co-founder of QGIS Italian Group (www.qgis.it)

Member of Italian Geographical Free and Open Source Software (GFOSS IT)

Seminars and conferences

February 2017	Il plugin FREEWAT per QGIS per la gestione sostenibile delle risorse idriche superficiali e sotterranee, Genova, Italy
May 2016	Participation at the QGIS Hack Fest in Girona, Spain
May 2015	Participation at the QGIS Hack Fest in Nodebo, Denmark
October 2014	"New translation infrastructure for QGIS: Transifex" at GFOSS Day, Ancona, Italy
October 2014	Participation at the QGIS Hack Fest in Essen, Germany
October 2013	"Help yourself: modi alternativi per contribuire a QGIS" at GFOSS Day, Bologna, Italy
September 2013	Participation at the QGIS Hack Fest in Brighton, UK

Contribution to free software

QGIS	Bug reporting Documentation writing and many improvements, including revisions Documentation translation (Italian) Website translation (Italian) GUI translation (Italian)
QGIS-Processing	Python scripts R scripts
Plotly	Bug fixing
Pelican	i18n improvements

Publications

De Filippis G., Borsi I., Foglia L., Cannata M., Velasco V., Vasquez-Suñe E., Ghetta M., and R. Rossetto, Software tools for sustainable water resources management: the GIS-integrated FREEWAT platform, Rendiconti Online Societa Geologica Italiana, 2017.

Borsi I., Rossetto R., Cannata M., De Filippis G., and Ghetta M., *Open Source for Water Management: including capabilities of MODFLOW-OWHM in the FREEWAT GIS modelling environment*, PeerJ Preprints, 4:e2209v2, <https://doi.org/10.7287/peerj.preprints.2209v2>, 2016.

De Filippis G., Rizzo D., Triana F., Ghetta M., Borsi I., Bonari E., and R. Rossetto, *ICT tools for enhancing sustainable water management in rural environment*, European Society for Agronomy (ESA), Edinburgh, September 2016 (highlight poster presentation).

De Filippis G., Triana F., Ghetta M., Borsi I., Bonari E., and R. Rossetto, *Enhancing water resource management in rural areas by means of simulation tools*, 43rd IAH CONGRESS, Montpellier, September 2016 (oral presentation).

Šimek J., Boukalová Z., Rossetto R., Sabbatini T., Triana F., Ghetta M., Bonari E. De Filippis G., Borsi I., Foglia L., and M. Cannata, *Enhancing participatory approach in water resources management: development of a survey to evaluate stakeholders needs and priorities related to software capabilities*, AGU Fall Meeting 2016, San Francisco, December 2016.