

## PERSONAL INFORMATION



## Daniel Marsh-Hunn

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🌐 <https://danji90.github.io>

Gender Male | Date of birth 13.09.1990

## JOB APPLIED FOR

## GI-Science Developer/Researcher

## WORK EXPERIENCE

January 2017 - July 2017

## Researcher

EURAC Research - Institute for Earth Observation, Bolzano (Italy)

- Establishment and maintenance of Sensor Observation Service (SOS) web platform and database via XML documents and python scripts
- Automated file processing via python scripts
- Assistance in accessing SOS databases via R-plugins
- Development and maintenance of Web-GIS applications using open source WMS/WFS tools (GeoServer) and web development technologies (JavaScript, HTML, CSS)

March - June 2016, October -  
December 2016

## Intern

EURAC Research - Institute for Earth Observation, Bolzano (Italy)

- Management of heterogeneous environmental data from in-situ monitoring stations
- Database management for Sensor Observation Service (SOS) in Environmental/Agricultural applications with PostgreSQL/PostGIS
- SOS database design and implementation
- Maintenance of environmental monitoring sensors on ground stations

2010–2016

## Language Coordinator / Language Teacher

AlphaBeta Piccadilly Language School (IT), UNISITE Guadalajara (MEX)

- Language Coordinator for English summer camps for 8-12 year-olds (supervision and organisation of day trips and language activities, budget administration, course contact person)
- Teaching English as a foreign language to adults at A1, A2 & B1 levels

## EDUCATION AND TRAINING

September 2017 - March 2019

## MSc - Erasmus Mundus Master in Geospatial Technologies

Universitat Jaume I - Universidade Nova de Lisboa - Universität Münster

- **Erasmus Mundus Scholarship** Holder
- **Subjects and skills:** Programming, Spatial Databases, Software Engineering, Applied Mathematics and Statistics, Spatial Analysis, Spatial Data Visualisation, Web and Mobile GIS development, Remote sensing, GIS Servers, Spatial Data Infrastructures, Python in GIS, Location-Based Services, Unmanned Aerial Systems, Usage-Centered Design of GIS applications, Advanced Research Methods and Skills, Spatial Data Analysis in R, Sense-Box, Project Management
- **Thesis:** *Interoperability Enhancement of IoT Devices Using Open Standards in a Smart Farming Use Case*

August 2016 Certificate of Bilingualism (Italian-German): Patentino A

2011 - 2016 BSc - Environmental Systems Sciences (focus on Geography)

Karl-Franzens University of Graz (Austria)

- **Subjects and skills:** Environmental Sciences, Systems Sciences, Mathematics and Statistics, Ecology, Sustainable Development, Interdisciplinary Research, Geoinformatics, Geographical Technologies, GIS, Remote Sensing, Cartography, Physical Geography, Human Geography, Integrative Geography

- **Thesis:** *Investigating rockfall at alpine rock walls using Terrestrial Laser Scanning*

July 2015 Certificate in English Language Teaching to Adults (CELTA) - Pass with grade A (distinction)

## PERSONAL SKILLS

Mother tongue(s) English, German

Other language(s)

	UNDERSTANDING		SPEAKING		WRITING
	Listening	Reading	Spoken interaction	Spoken production	
Italian	C2	C2	C2	C2	C1
Spanish	C1	C1	C1	C1	C1
French	A2	B1	A2	A2	A1

Levels: A1/A2: Basic user - B1/B2: Independent user - C1/C2: Proficient user  
Common European Framework of Reference (CEF) level

Communication skills Good communication and team work skills gained in my educational and professional careers, in sport (climbing, diving) and while travelling

Organisational / managerial skills Organisation and management skills acquired mostly in group projects during the university career (e.g. GeoMundus Conference 2018) and as course coordinator in Alpha Beta Piccadilly (task distribution, work schedules, time management, financial administration, etc.)

Job related skills

### ■ Web services:

- Git (GitLab, GitHub)
- Heroku (Web Hosting Platform)
- WMS, WFS (eg. GeoServer)
- OGC sensor standards: Sensor Observation Service (e.g. 52North-SOS, ist-SOS), SensorThings API (e.g. FROST server)
- rabbitMQ: MQTT for IoT communication
- R (Shiny Apps)
- Google API (maps, charts, fusion table...) and SDK (Google Cloud Platform)

### ■ Programming:

- Databases: SQL and NoSQL (MongoDB)
- Web development: JavaScript (jQuery, AngularJS, ReactJS, D3, Leaflet, node.js, RESTful APIs with express.js), CSS (Bootstrap), HTML5, Python
- Spatial/Data Analysis: R, Python (GDAL, pyQGIS, OGR, ArcPy, pandas, numpy)
- Arduino

### ■ VM environments: Docker Container Platform

### ■ Hardware: LiDAR laser scanners (Riegel), Unmanned Aerial Vehicles, microprocessor boards and environmental sensors

### ■ Software:

- Documents: Microsoft Office package, Adobe Suite, LaTeX, Google (drive, slides, docs, drawings etc), UML
- Geographic Information: ArcGIS (Desktop, Pro, Servers, Online), QGIS, ERDAS Imagine, PCI Geomatica, RStudio, RiScan Pro, CloudCompare, PostGIS
- Databases: PostgreSQL, PgAdmin, MongoDB Compass
- IDEs: Notepad++, Atom, Eclipse, PyCharm, Sublime
- Mobile: Android Studio
- Dynamic systems simulation: Vensim, Netlogo

### ■ Operating Systems: Windows and Linux (Centos, Ubuntu)

Driving licence B