

Marco Poetsch

Geospatial Analyst



GIS is my super-power, and tackling today's biggest issues head-on using data and the whole spectrum of analysis tools is my mission. As a GIS guru, I combine my love for geography, technology, science and problem-solving. And the outcome... clearer insights, greater communication and collaboration with stakeholders, reduced time, effort, and cost. Data is our most valuable asset and knowing how to use it effectively is priceless.

Through the vast breadth of GIS applications, from spatial data analysis and visualisation to risk modelling, remote sensing, cartography, and WebGIS, through to the development of applications that automate time-consuming and error-prone tasks, I achieve the best possible outcomes on all projects.

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Skills

Geoinformation Software & Tools

ArcGIS Enterprise	ArcGIS Field Apps
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ArcGIS Online	ArcGIS Pro
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Autodesk CAD	DHI MIKE Urban
■ ■ ■ □ □	■ ■ □ □ □
FME	QGIS
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Trimble eCognition	ERDAS Imagine
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Other Software & Tools

Adobe CreativeSuite	MS Office Suite
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MS PowerAutomate	MS PowerBi
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R Studio	SPSS
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Programming

ESRI Arcade	R
■ ■ ■ □ □	■ ■ ■ □ □
OpenLayers	HTML
■ ■ ■ ■ □	■ ■ ■ ■ □
CSS	Python
■ ■ ■ ■ ■	■ ■ ■ □ □
JavaScript	
■ ■ ■ ■ □	

Languages

German Speaking	German Writing	German Understanding
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English Speaking	English Writing	English Understanding
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Education

- 2011 - 2014 **Master of Science, Applied Geoinformatics**
Z_GIS, Department of Geoinformatics - University of Salzburg
Master Thesis: Modelling Avalanche Risk Assessment Zones:
A Comparison of two Regionalisation Methods
- 2008 - 2011 **Bachelor of Science, Geography**
Department of Geography and Geology - University of Salzburg
1st. Bachelor Thesis: India: Commercial Policy since 1991
2nd Bachelor Thesis: Risk Analysis - Wildfire.
Case Study Ventura County, California
- 2001 - 2005 **Web- & Media Design**
Higher Technical Institute - HTBLA Salzburg

Courses and Certifications

- Leadership Development Programme
- Do-It-Yourself Geo Apps (UDEMI - ESRI)
- Cartographic Design Using ArcGIS (ESRI VC)
- Creating and Editing Labels and Annotation (ESRI VC)
- Creating and Integrating Data for Natural Resource Applications (ESRI VC)
- Deriving Rasters for Terrain Analysis Using ArcGIS (ESRI VC)
- Introduction to Surface Modeling Using ArcGIS (ESRI VC)
- Learning ArcGIS 3D Analyst (ESRI VC)
- Learning ArcGIS Spatial Analyst (ESRI VC)
- Python Scripting for ArcGIS 10 (ESRI VC)
- Python Scripting for Geoprocessing Workflows (ESRI VC)
- Python Scripting for Map Automation (ESRI VC)
- Understanding Map Projections and Coordinate Systems (ESRI VC)
- Using Raster Data for Site Selection (ESRI VC)
- Working with Rasters in ArcGIS Desktop (ESRI VC)
- Augmented Reality (Seminar)
- Building Information Models (Seminar)
- Open Geo-Content Open Standards Open Data (Seminar)



Employment

■ 06/2017 - present

GIS Analyst / Relationship Manager

Nelson City Council

To be a GIS Analyst and a Relationship Manager requires a diverse skill-set. On the one hand, you have to be technically skilled and understand complex spatial phenomena; on the other hand, you need to communicate with stakeholders and present them geospatial technology and project outcomes so they can easily understand them. The Nelson City Council allowed me to work independently and introduce new and innovative technology and solutions to the wider Council.

■ 07/2014 - 03/2016

Research Associate

Z_GIS, Department of Geoinformatics - University of Salzburg

As a research associate at the Z_GIS - Department of Geoinformatics, I was responsible for multiple national and international projects. The topics of these projects varied from climate change and vulnerability, over crime analyses, to loss and damage reports. My main tasks included GIS-analyses and cartography, as well as geo-design and geo-communication.

Vulnerability Assessment for Mauretania

The project aimed to assess the vulnerability of the Mauritanian rural livelihood in the effect of climate change. For this project, I was primarily responsible for spatial analyses, cartography, data management and geo-publishing. Project website: <https://bit.ly/MPVulnerability>

UNEP – Loss and Damage Report

Together with the United Nations Environment Programme, the Department of Geoinformatics analysed and reported on Loss and Damage (LD) and the role of ecosystem services in Asia, Africa, Europe and North America. My study area was, in particular, the Philippines, where the typhoon 'Haiyan' destroyed large parts of the country.

Publication: <https://bit.ly/MPLossAndDamagePaper>

Project website: <https://bit.ly/MPLossAndDamage>

Climate Change in Austria

In collaboration with the Central Institute for Meteorology and Geodynamics (ZAMG) and the Wegener Center for Climate and Global Change at the University of Graz, this project aimed to analyse the past and the future climate change in the Austrian states. The Z_GIS was mainly responsible for geoinformation preparation, publishing, and management.

Project website: <https://bit.ly/MPClimateChange>

Crime Prediction Analyses

A real-time, web- and GIS-based reference system was developed to improve the accuracy of crime predictions. For this project, my primary duties were the design and the geo-communication of project outcomes.

Project website: <https://bit.ly/MPcrime>

■ 10/2013 - 06/2014

Research Assistant

Z_GIS, Department of Geoinformatics - University of Salzburg

As a research assistant, my primary duties were to support research projects and teaching GIS classes. Furthermore, I was also responsible for geo-communication and event management.

Quality of Life

This ongoing project aims to investigate the quality of life in urban areas. Different indicators that might influence the quality of life are identified and evaluated using measurement techniques. The air quality, including CO, NO2 and fine particulates, noise, vegetation density, and subjective perceptions, are combined to estimate life quality. I was responsible for the fieldwork and the evaluation and analysis of the data.

Publication: <https://bit.ly/MPQualityOfLife> (in German)

Trends and Actors in GIScience

This project illustrates the development of GIScience in the last two decades. My tasks were the bibliometric analyses and the presentation of GIScience-related publications, including their systematic (bibliometric) network.

■ 03/2013 - 07/2013

Intern

Department of Geography - University of the Aegean

During my internship, I developed an interactive WebGIS platform. Users of the application can access relevant information and create information and share it with the public. To ensure low costs, I created this application solely using FOSS GIS.

- 03/2013 - 06/2013 **Project Assistant**
Department of Geography and Geology - University of Salzburg
This position was linked with the internship at the University of the Aegean. The target was to collect and process data which might be relevant for the WebGIS platform of Lesvos island. Therefore, spatial and non-spatial data across various topics (e.g. geology, agriculture, nature, history) were acquired and amalgamated.
- 10/2012 - 01/2013 **Research Assistant**
Z_GIS, Department of Geoinformatics - University of Salzburg
For this position, I primarily worked with ArcGIS Online to investigate its potential for the department. I was also the teaching assistant for the Spatial Analyses course.
- 06/2012 - 07/2017 **Account Manager**
Onyx Technology
Onyx Technology developed an outdoor navigation system for Android, iOS, Blackberry and Java. This application, called Ape@Map, allows using high-quality outdoor maps, tracking, outdoor routing and more. I am responsible for customer support and design issues.
- 10/2011 - 07/2012 **Tutor**
Department of Geography and Geology - University of Salzburg
I was tutor for different classes during my studies, namely 'Advanced Geoinformation', 'Spatial Analyses' and 'Remote Sensing and Applied Image Processing'. My tasks were to support teaching operations, work with students and review their assignments.
- 07/2008 - 07/2012 **Web- & Media Design**
Freelance
As a Web- and Media-Design freelancer, I develop corporate designs and realise CMS solutions using Joomla, Typo3 and WordPress.



Publications

- Chimani B. et al. 2016. Climate prediction and scenarios on decadal to centennial timescale. 16th EMS Annual Meeting & 11th European Conference on Applied Climatology (ECAC), 12–16 September 2016, Trieste, Italy
- Keul, A., Brunner, B., Poetsch, M. S. & Blaschke, T., 2015. Lärm, Luft, Grün und Lebensqualität – Feldforschung in Salzburg-Lehen. In: AGIT 2015 – Symposium und Fachmesse Angewandte Geoinformatik. Berlin: VDE, pp. 480-485.
- Poetsch, M. S., 2012. 3D-Browser für Smartphones und Tablets. GIS.BUSINESS, 7-2012
- Poetsch, M. S., 2016. Modelling of Homogeneous Regions for Avalanche Risk Assessment – A Comparison of two Regionalisation Methods. GIS.Science, 1-2016.
- United Nations Environment Programme, 2016. Loss and Damage: The role of Ecosystem Services. United Nations Environment Programme, Nairobi, Kenya.



Honours & Awards

Graduation with Distinction - 2014

Master of Science in Applied Geoinformatics

Scholarship for High Performance - 2012

Bachelor of Science in Geography



Hobbies and Interests

Hiking, photography, travelling, ski touring, kayaking and swimming