



# Lucas van der Meer

GEOSPATIAL DATA SCIENTIST

Salzburg, Austria

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*I am a Master of Science in Geospatial Technologies who enjoys working at the interplay between theory and practice. My passion is to improve the quality of our living environments by supporting design choices with spatio-temporal data science.*

## Employment

### Geospatial Developer

TRIPLY GMBH

Linz, Austria

May 2019 — Present

- Developing data-based solutions to analyze and improve sustainable transport accessibility in urban and rural regions.
- Solving vehicle routing problems to optimize the efficiency of sustainable transportation alternatives to large events.

### Research Assistant

UNIVERSITY OF SALZBURG, DEPARTMENT OF GEOINFORMATICS, EO ANALYTICS RESEARCH GROUP

Salzburg, Austria

May 2019 — Present

- Employed in the research projects [Sen2Cube](#) and [SemantiX](#).
- Developing a Python library that implements a structured workflow for semantic querying of Earth observation data cubes.

### Junior GIS Specialist

UNIVERSITY OF GRONINGEN GEOSERVICE, CENTRE OF INFORMATION TECHNOLOGY

Groningen, The Netherlands

September 2016 — August 2017

- Investigating the spatio-temporal patterns of supply shortage of shared bicycles in The Netherlands.
- Results were published in [Dutch newspapers](#).

### Student Assistant

UNIVERSITY OF GRONINGEN, FACULTY OF SPATIAL SCIENCES

Groningen, The Netherlands

September 2015 — January 2016

- For the bachelor courses in Statistics and Spatial Information Technology.

## Education

### MSc. in Geospatial Technologies

NEW UNIVERSITY OF LISBON, INFORMATION MANAGEMENT SCHOOL

Lisbon, Portugal & Muenster,  
Germany

UNIVERSITY OF MÜNSTER, INSTITUTE FOR GEOINFORMATICS

2017 — 2019

- Reproducible spatial data science in R, Python and SQL.
- Geographic information science.
- Geostatistics and spatial statistics.
- Machine Learning and data mining of geospatial big data.
- Remote sensing.
- Project management and academic writing.
- For my [master thesis](#), I created a spatio-temporal forecasting system for bike availability in dockless bike sharing systems, using time series forecasting methods. It was supervised by Prof. Dr. Edzer Pebesma. Grade: 20 out of 20.

### Academic minor in Mathematics & Statistics

UNIVERSITY OF GRONINGEN, FACULTY OF SCIENCE AND ENGINEERING & FACULTY OF ECONOMICS AND BUSINESS

Groningen, The Netherlands

2015 — 2016

- Statistics and statistical reasoning.
- Probability theory.
- Calculus.
- Linear algebra.

### BSc. in Environmental and Infrastructure Planning

UNIVERSITY OF GRONINGEN, FACULTY OF SPATIAL SCIENCES

Groningen, The Netherlands

2013 — 2016

- Spatial information technology.
- Urban planning, environmental planning and water planning.
- Physical geography and economic geography.
- Environmental engineering and transport engineering.
- For my bachelor thesis, I investigated the change of the relative accessibility of peripheral regions in The Netherlands over time, using network analysis tools. It was supervised by Dr. Peter Groote. Grade: 9.5 out of 10.

## Publications & Presentations

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1. Abad, L., & Van der Meer, L. (2018). Quantifying Bicycle Network Connectivity in Lisbon Using Open Data. *Information*, 9(11), 14. <https://doi.org/10.3390/info9110287>
2. Van der Meer, L. (2020). A semantic querying system for earth observation imagery. *Presentation at the GeoPython Conference, September 21-22 2020*. <https://submit.geopython.net/ml2020/talk/ZMZTR3/>
3. Van der Meer, L., Abad, L., Gilardi, A., & Lovelace, R. (2021). Tidy geospatial networks in r. *Accepted Talk for the User! Conference, July 5-9 2021*. <https://user2021.r-project.org/>
4. Sudmanns, M., Augustin, H., Van der Meer, L., Werner, C., & Tiede, D. (2021). One GUI to rule them all: Accessing multiple semantic EO data cubes in one graphical user interface. *Accepted Paper for the 12th International Symposium on Digital Earth, July 6-8 2021*. <https://digitalearth2021.org/>

## Software Development

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### sfnetworks

TIDY GEOSPATIAL NETWORKS IN R

- Author and Maintainer
- Available on the [Comprehensive R Archive Network \(CRAN\)](#) and funded by the [R-Consortium](#).

R Package

2021

## Honors

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### Best Student Award

FOR THE MASTER OF SCIENCE IN GEOSPATIAL TECHNOLOGIES

- Final grade: 19 out of 20.

Muenster, Germany

2019

### Best Poster Award

AT THE AGIT SYMPOSIUM FOR APPLIED GEOINFORMATICS

- SemantiX - A cross-sensor semantic Earth observation data cube to open and leverage essential climate variables with scientists and the public

Salzburg, Austria

2020

## Technical Skills

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**Programming languages** R, PYTHON, POSTRESQL (WITH POSTGIS EXTENSION), BASH

**Desktop GIS** QGIS, ArcGIS, GRASS GIS

**Routing libraries** GOOGLE OR TOOLS, GRAPHHOPPER, OPENTRIPPLANNER, OSRM, PGRROUTING, R5

**Markup languages** MARKDOWN, RMARKDOWN, LATEX, HTML

**DevOps** DOCKER, GIT, GITHUB, JIRA

**Other** LINUX OS, OPENSTREETMAP, GDAL, PROJ, GEOS

## Soft Skills

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**Organization** I WAS PART OF THE ORGANIZING COMMITTEE OF THE [GEOMUNDUS CONFERENCE](#) IN LISBON, PORTUGAL, 2018.

**Management** I WAS TREASURER OF THE STUDENT CYCLE CLUB IN GRONINGEN, THE NETHERLANDS, BETWEEN 2013 AND 2014.

**Sports** I HAVE BEEN PART OF SEVERAL CYCLING TEAMS UP TO ELITE LEVEL FROM 2012 UNTIL PRESENT.

## Languages

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**Native** DUTCH

**Advanced** ENGLISH, GERMAN

**Basic** SWEDISH, FRENCH, SPANISH

## References

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**Prof. Dr. Edzer Pebesma** UNIVERSITY OF MÜNSTER, INSTITUTE FOR GEOINFORMATICS. [CONTACT: EDZER.PEBESMA@UNI-MÜNSTER.DE](mailto:EDZER.PEBESMA@UNI-MÜNSTER.DE)

**Prof. Dr. Dirk Tiede** UNIVERSITY OF SALZBURG, DEPARTMENT OF GEOINFORMATICS. [CONTACT: DIRK.TIEDE@SBG.AC.AT](mailto:DIRK.TIEDE@SBG.AC.AT)