

# RAPHAEL SULZER



## CONTACT

✉ raphaelsulzer@gmx.de  
📍 Nice, France  
🏠 raphaelsulzer.de

🌐 LinkedIn  
🐙 GitHub  
👤 Google Scholar  
🔍 ResearchGate

## SKILLS

### Programming

Python  
C++  
CMake  
LaTeX  
C#  
HTML/CSS  
JavaScript



### Languages

German  
English  
French  
Dutch

Native  
Fluent  
Conversational  
Beginner

### Other

pytorch CGAL GitHub GIS  
surface mesh photogrammetry  
conda unix matplotlib  
deep learning point cloud  
computer vision Blender  
geometry processing

## EXPERIENCE

### RESEARCH ENGINEER

📅 11/2023 - Present  
📍 LUXCARTA, MOUANS-SARTOUX, FRANCE  
Developing an algorithm for country-wide building model reconstruction from airborne LiDAR data.

### POSTDOCTORAL RESEARCHER

📅 11/2022 - Present  
📍 TITANE, INRIA, SOPHIA-ANTIPOLIS, FRANCE  
Carrying out research in geometry processing, computer vision and deep learning.

### PHD RESEARCHER

📅 12/2018 - 10/2022  
📍 LASTIG, INSTITUT GÉOGRAPHIQUE NATIONAL, PARIS, FRANCE  
📍 IMAGINE, ÉCOLE DES PONTS PARISTECH, MARNE-LA-VALLÉE, FRANCE  
Carrying out research in geometry processing, computer vision and deep learning.

### LECTURER

📅 12/2018 - 12/2019  
📍 ÉCOLE NATIONALE DES SCIENCES GÉOGRAPHIQUES, PARIS, FRANCE  
Designing and implementing e-learning courses in photogrammetry and GIS.

### GIS DEVELOPER

📅 05/2018 - 07/2019  
📍 GEO-COL GIS AND COLLABORATIVE PLANNING, AMSTERDAM, NETHERLANDS  
Designing and implementing GIS applications.

### GRADUATE STUDENT INTERN

📅 06/2017 - 02/2018  
📍 ARUP, AMSTERDAM, NETHERLANDS  
Working on master's thesis in GIS team.

## EDUCATION

### PHD DEGREE, DEEP LEARNING AND GEOMETRY PROCESSING

📅 12/2018 - 10/2022  
📍 GUSTAVE EIFFEL UNIVERSITY, MARNE-LA-VALLÉE, FRANCE  
PhD Thesis: Learning Surface Reconstruction from Point Clouds in the Wild ([link](#))

### MASTER'S DEGREE, MSC GEOMATICS, CUM LAUDE

📅 08/2016 - 05/2018  
📍 DELFT UNIVERSITY OF TECHNOLOGY, DELFT, NETHERLANDS  
Master's Thesis: Shape Based Classification of Seismic Building Structural Types ([link](#))

### ERASMUS EXCHANGE SEMESTER

📅 08/2015 - 06/2016  
📍 DELFT UNIVERSITY OF TECHNOLOGY, DELFT, NETHERLANDS

### MSC GEODESY AND GEOINFORMATICS

📅 05/2015 - 01/2016  
📍 UNIVERSITY OF STUTTGART, STUTTGART, GERMANY

### BACHELOR'S DEGREE, BSC GEODESY AND GEOINFORMATICS

📅 10/2011 - 05/2015  
📍 UNIVERSITY OF STUTTGART, STUTTGART, GERMANY  
Bachelor's Thesis: Photogrammetric Measurement of Snow Depth Using an UAV Platform ([link](#))


## REFERENCES

---

Loïc LANDRIEU


 LASTIG, INSTITUT GÉOGRAPHIQUE NATIONAL


 +33 6 77 18 92 53

 loic.landrieu@ign.fr

Renaud MARLET

 IMAGINE, ÉCOLE DES PONTS PARISTECH

 +33 1 64 15 21 86



 renaud.marlet@enpc.fr

## PUBLICATIONS

---


SimpliCity: Reconstructing Buildings with Simple Regularized 3D Models

 J.-P. Bauchet, **R. Sulzer**, F. Lafarge, Y. Tarabalka

 2024  CVPR Workshop on Urban Scene Modeling

 [arXiv](#)


Concise Plane Arrangements for Low-Poly Surface and Volume Modelling



 **R. Sulzer**, F. Lafarge

 2024  arXiv preprint

 [arXiv](#)

Evaluating Surface Mesh Reconstruction Using Real Data

 Y. Marchand, L. Caraffa, **R. Sulzer**, E. Clédat, B. Vallet

 2023  Photogrammetric Engineering & Remote Sensing Journal, Volume 89, Number 10

 [link](#)


A Survey and Benchmark of Automatic Surface Reconstruction from Point Clouds



 **R. Sulzer**, L. Landrieu, R. Marlet, B. Vallet

 2023  arXiv preprint

 [arXiv](#)

Deep Surface Reconstruction from Point Clouds with Visibility Information



 **R. Sulzer**, L. Landrieu, A. Boulch, R. Marlet, B. Vallet

 2022  26th International Conference on Pattern Recognition (ICPR), Montréal, Québec

 [arXiv](#)


Scalable Surface Reconstruction with Delaunay-Graph Neural Networks



 **R. Sulzer**, L. Landrieu, R. Marlet, B. Vallet

 2021  Computer Graphics Forum, Wiley, 2021, Eurographics Symposium on Geometry Processing 2021

 [arXiv](#)


Shape Based Classification of Seismic Building Structural Types


 **R. Sulzer**, P. Nourian, M. Palmieri, J. van Gemert

 2018  International Archives of the Photogrammetry, Remote Sensing and Spatial Information Sciences, 2018

 [link](#)

Track-id: Activity Determination based on Wi-Fi Monitoring

 van der Spek, S., Verbree, E., Quak, W., Groeneveld, I. J. D. G., **Sulzer, R.**, Theocharous, E., Xu, Y.

 2016  Proceedings of the 13th International Conference on Location Based Services: LBS 2016

 [link](#)