RAPHAEL SULZER

CONTACT

raphaelsulzer@gmx.de
raphaelsulzer.de
Nice, France

LinkedIn
GitHub
Google Scholar

SKILLS

Programming

Python
C++
LaTeX
C#
HTML/CSS
JavaScript

Languages

German	*Native*
English	*Fluent*
French	*Conversational*
Dutch	*Beginner*

Other

pytorch · CGAL · GitHub · GIS · 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 3D 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-VALLEÉE, 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 for public and private customers.

GRADUATE STUDENT INTERN

06/2017 - 02/2018
ARUP, AMSTERDAM, NETHERLANDS
Developing an algorithm for building classification from remote sensing and cadastral data.

EDUCATION

PHD DEGREE, DEEP LEARNING AND GEOMETRY PROCESSING

12/2018 - 10/2022
GUSTAVE EIFFEL UNIVERSITY, MARNE-LA-VALLEÉE, 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

Florent LAFARGE
florent.lafarge@inria.fr
TITANE, INRIA
Postdoctoral advisor

Loïc LANDRIEU
loic.landrieu@enpc.fr
IMAGINE, ÉCOLE DES PONTS PARISTECH
Doctoral advisor

PUBLICATIONS

Concise Plane Arrangements for Low-Poly Surface and Volume Modelling
R. Sulzer, F. Lafarge
2024 European Conference on Computer Vision arXiv

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

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