

**Juliette ORTET**

## **PhD STUDENT - ENGINEER IN GEOMATICS**

Specialized in remote sensing and radiative transfer

### **Adress**

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FRANCE

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### **Driver's license**

Full, clean

## **Professional experiences**

Sept. 2020

Aug. 2024

PhD Student in environmental science

[CESBIO - UQTR](#)

**"Observations of soil surface temperatures over the whole Arctic permafrost area using remote sensing"**

PhD thesis in "co-tutelle": Centre d'Etudes Spatiales de la Biosphère (CESBIO) & Université du Québec à Trois-Rivières (UQTR)

Radiative transfer modeling - SMOS data - Permafrost - Python programming

Oct. 2019

July 2020

Design and development engineer

[Magellium Artal Technologies](#)

**Operational maintenance services and project manager of the Overland project (Airbus)**

Satellite imagery processing - IDL programming - Project management

## **Experiences in geomatics and remote sensing**

Mar. 2019

Aug. 2019

5-month internship

[European Southern Observatory, APEX/ALMA](#)

**"Improving atmospheric models and short-term forecasting capability of the water vapour above the Chajnantor plateau"**

Implementation of a PWV forecasting code

Testing ATM (Atmospheric Transmission at Microwaves) model

Radiative transfer modeling - Kalman Filter - Python programming

May 2018

Aug. 2018

13-week internship

[European Southern Observatory, APEX/ALMA](#)

**"A study of the influence of the historical snow accumulation and wind effects on the extended Chajnantor plateau"**

Implementation of an automated process for snow detection and qualification of the process thanks to ground truth campaigns

Spatial analysis - Sentinel-2 - Computational Fluid Dynamics - Batch scripting

Mar. 2018

May 2018

Development project

[Géoportail \(IGN\) & Fondation Petzl](#)

**"Development of a web tool to map avalanche risk (Munter method)"**

Implementation of the "Yéti" calculation service on the IGN servers and demonstrator web page : <https://www.camptocamp.org/yeti>

Node.js - Web programming - Communication products (flyers, poster)

May 2017

Aug. 2017

10-week internship

[French Mapping Agency \(IGN\)](#)

**Engineering and land surveying practicals**

Satellite classification of vegetation, site investigation of a medieval bridge, 3D-mapping of a church, GNSS antenna qualification

## Education

- 2018 - 2019 **Master Degree in Physical Methods for Remote Sensing (MPT)**  
[Institut de Physique du Globe de Paris \(IPGP\)](#) - Sorbonne Université  
Electromagnetic radiation, Optical & microwave radiometry, Radiative transfer
- 2016 - 2019 **Engineering Master Degree in Geomatics**  
[French National School of Geographic Sciences \(ENSG\)](#)  
Remote sensing, Geodesy, Photogrammetry, Land surveying, SIG, Cartography
- 2014 - 2016 **Two year preparatory courses for competitive examination to enter Engineering Schools (Bachelor Level)**  
[Strasbourg](#)  
specialized in Earth Sciences, Biology, Mathematics, Chemistry and Physics

## Other experiences

- Since 2020 **Lectures & practicals for the ENSG students at bachelor level (L3)** [ENSG](#)  
Introduction to satellite imagery, Image format
- Since 2019 **Member of the ENSG former students' association (AAE)** [ENSG](#)  
Community manager, round-tables organization
- Since 2017 **Temporary worker for the ENSG communication unit** [ENSG](#)  
Student fair, popularization of geomatics
- 2017-2018 **Secretary of the students' association** [ENSG](#)  
150 members, 78.000 euros of annual budget
- 2013 **French Youth Leadership Certificate (BAFA)** [Strasbourg](#)  
Animation in summer camps for children between 3 and 11

## Main skills

- Programming** Python, Matlab, IDL, Fortran, Java,  
Web (HTML, CSS, JavaScript, PHP, NodeJS)
- Data acquisition** GNSS, total station, laser-scanner, LiDAR, levelling instruments
- Data treatment** QGIS, QField, ArcGIS, MicMac, Orpheo ToolBox
- Applications** Microsoft Office, OpenOffice, LaTeX, Indesign, Inkscape

## Languages

- French ★★★★★
- English ★★★★★
- German ★★★★★
- Spanish ★★★★★