

Maxime SOARES CORREIA

MASTER GEOLOGY · STUDENT

Institut de Physique du Globe de Paris (IPGP)

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Education

Institut de Physique du Globe de Paris (IPGP)

MASTER GEOLOGY

Paris

Sep. 2025 - PRESENT

- 1st year
 - Six-day field trip focused on volcanic, tectonic, and geophysical studies in the Limagne Rift and Chaîne des Puys region.
 - Five-day field trip focused on the volcanic history of the Puy de Sancy, Mont-Dore Massif, and the Cantal stratovolcano

Université Paris-Saclay

EARTH & UNIVERSE SCIENCES BACHELOR

Bures-Sur-Yvette

Sep. 2022 - May 2025

- Bachelor 3rd year: Earth & Universe Sciences
Options: Python Modeling (Major, 19/20)
 - President of AGUPS (Association des Géologues de l'Université Paris-Saclay)
 - VigieCiel Instructor with the *Museum National d'Histoire Naturel*
 - VigieCratère : Validating impact structures on Earth for a collaborative science program
 - Field courses in *Cantal* (Magmatism), *Morvan* (Geophysics, Hydrogeology), *Cotentin* (Magmatism, Metamorphism) and *Alps* (Tectonics, Geomorphology) (Average of 16.77/20, Major)
 - Sedimentary petrography assisted by A.I as a semester project (TISA) (Major, 19,75/20)
 - Impact craters modeling using Python and SageMaths (EasyCraterSim)
 - Major in *Programming* (19,5/20), *English* (19/20), *Quantitative methods in Geosciences* (16,8/20)
- Bachelor 2nd year: Earth & Universe Sciences, comparative planetology
 - Major in *Elementary Geochemistry*, *Team Project Management*
 - Field course to study the geological history of the *Corbières* (Tectonic, Cartography)
- Bachelor 1st year: Geosciences & Physics Double Degree
 - Field course in *Normandy* to study sedimentology, tectonics, geodynamics and magmatism

EPITA: Ecole Pour l'Informatique et les Technologies Avancées

EPITA: PREPARATORY CLASS

Villejuif

Sep. 2020 - Aug. 2022

- Whole cursus in English
- Mathematics, physics, electronics, and Engineering Sciences
- Trained in OCaml, Python, JavaScript, C#, and SQL
- Developed a videogame during six months as a semester project

Lycée Privé Catholique Jeanne d'Arc

GENERAL BACCALAURÉAT IN SCIENCES

Bayeux

Sep. 2019 - Jun. 2020

- European Section
- Mathematics in english
- TOEIC 980/990, C2 level

Skills

Geology	Petrography, Magmatism, Metamorphism, Geochemistry, Sedimentology, Tectonic, Geophysics, Geodynamics, Modeling
Planetology	Comparative planetology, cosmochemistry, geomorphology, impact craters, meteorites
Programming	Python, SageMaths, JavaScript, OCaml, C#, React.JS, MongoDB
A.I	Convolutional Neural Network, Deep Learning
Management	President of a student association, Project Management and Funding, Team Management

Experiences

GEOPS - Géosciences Paris-Saclay

RESEARCH ASSISTANT, WITH B. SAINT-BEZAR, A. BENEDICTO AND B. BRIGAUD

Orsay

Aug. 2025 - Sep. 2025

- Developed a 3D geostatistical model of radioactivity distribution within a rock outcrop from in-situ surface measurements (X, Y, Z, counts per minute)
- Designed a workflow to extrapolate surface radiation data in depth, generating volumetric datasets
- Implemented 3D kriging interpolation to construct continuous solid models from discrete point measurements

GEOPS - Géosciences Paris-Saclay

RESEARCH ASSISTANT, WITH G. DELPECH AND J.D. MOREAU

- 3D modeling of various rocks samples using photogrammetry
- Developed a website and a database to store 3D models
- Petrographic analysis of multiple sedimentary, volcanic and metamorphic rocks

Orsay

May 2025 - Jul. 2025

GEOPS - Géosciences Paris-Saclay

RESEARCH ASSISTANT, WITH F. SCHMIDT AND L. MARTINEZ

- Worked to validate a model of crater counting on the Moon
- Adapted an existing pipeline to recognize lunar impact craters using A.I
- Faster Regional Convolutional Neural Network
- Introduction to research and lab life
- Wrote a report in english

Orsay

June 2024 - July 2024

Parkours

TUTOR FOR COLLEGE STUDENTS (HOMEWORK ASSISTANCE)

- Provided academic supports to students from Grade 6 (6ème) to Grade 12 (Terminales) in various subjects
- Assisted students in understanding key concepts, improving study habits, and preparing for exams
- Conducted tutoring sessions twice a week, adapting teaching methods to individual learning styles
- Encouraged students' autonomy and confidence through structured guidance and personalized feedback
- Subjects covered: Mathematics, English, Sciences, French, History, and more

Versailles, Montrouge, Paris

April 2025 - PRESENT

Maison Gasdon

SALESMAN

- Student job
- 20 hours a week

Orsay

January 2024 - April 2025

Extracurricular Activity

EasyCraterSim : Lightweight numerical simulation tool for impact craters

AUTHOR AND DEVELOPER, DOI: 10.5281/ZENODO.14895828

- Developed a scientific yet user-friendly simulation program for impact crater formation.
- Integrated mathematical modeling techniques to analyze impact parameters and crater morphologies.
- Contributed to the open-source development and documentation of the project.
- Project aiming to be integrated to a collaborative science program with the MNHN (VigieCratère)

Orsay

Feb 2025 - PRESENT

TISA - Thin-section Image Segmenter and Analyzer

AUTHOR AND DEVELOPER, DOI: 10.5281/ZENODO.14996768

- Developed a pipeline to automatically quantify grains on carbonates thin-section.
- Built upon PetroSeg by F. Azzam (2024).
- Using FastSAM.

Orsay

Jan 2025 - PRESENT

AGUPS (Association des Géologues de l'Université Paris-Saclay)

PRESIDENT

- Created and organized a facultative field course for Bachelor2 and Bachelor3 students in Cotentin, Normandy. During 10 days, students discovered and studied the magmatic and metamorphic history of the Armorican Massif.
- Collaboration with Muséum National d'Histoire Naturelle, GEOPS, and Earth Sciences Graduate School.
- Organized multiple events for students, from bachelor to PhD as well as teachers and researchers.
- Multiple interventions to college and elementary students around geology subjects.
- Various activities to help students deal with work and revisions, as well as programming.
- Developed the professional network of the association through LinkedIn and Instagram.

Bures-sur-Yvette

May 2024 - PRESENT

VigieCiel (Museum National d'Histoire Naturelle)

INSTRUCTOR

- Created an educational kit to teach students to recognize meteorites, with a total of six samples of meteorites.
- Funded by the *Département des Sciences de la Terre - Université Paris-Saclay*.

Paris

Sep. 2024 - PRESENT

Junior Space Academy - Summer School

SUMMER SCHOOL STUDENT

- One week of conferences around planetology, cosmochemistry, space engineering
- UVSQ, IPGP, Sorbonne Jussieu, IAS, Safran, ONERA

Guyancourt, Paris, Orsay

Jun. 2024