Hugo LECOMTE
RESEARCH ENGINEER IN GEODESY
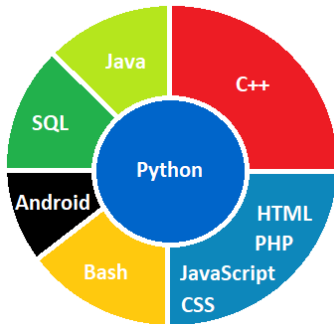**Geomatics Engineer**

Address
Ramonville-St-Agne
France

Mail
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Website
hulecom.github.io

Programming

OS Ability
Linux ★★★★★
Windows ★★★★☆

Languages
French ★★★★★
English ★★★★☆
TOEIC (905)
Spanish ★★★★☆

Driving Licence
Full, clean

Education

2016 - 2019	**Master's Degree in Geomatics Engineering**	**ENSG**
	3rd year specialisation: Photogrammetry, Positioning and Measurement of Deformations (PPMD) Geodesy, Remote sensing, Photogrammetry and Programming and also Land surveying, GIS, Cartography	
2014 - 2016	**Two-year preparatory courses for competitive examination to enter Engineering school**	**Grenoble**

Professional Experience

11/23 - 11/24	**Research Engineer in geodesy / gravimetry**	**LEGOS, Toulouse**
	Gravimetry - GRACE - Oceanography	
11/20 - 10/23	**PhD student in geodesy**	**ITES, University of Strasbourg**
	Magnetic, gravimetric and geodetic constraints on the dynamics of the fluid core	
	Gravimetry - Geomagnetism - GRACE	
10/19 - 10/20	**Research and Development Engineer**	**IGN**
	Creation and treatment of time series with Sentinel 1&2 images to classify crop type (Monitoring PAC), Geodesy instruction (Geodetic reference system: Lecture courses and practical exercises)	
	Remote sensing - Geodesy - Database - Radar	

Experience in Geomatics

05/19 - 09/19	**5-months Intership**	**National Land Survey of Iceland**
	«**Geodesy in a complex environment, Icelandic references frames**»	
	Geodesy - Programming	
10/18 - 03/19	**Geodetic programming project**	**IFFSTAR**
	«**Creation of an automatic computation software for a GNSS network with RTKlib**»	
	Python (PyQt), Bash, Make - GNSS	
05/18 - 08/18	**12-week Intership for the Paris Observatory**	**SYRTE and LAREG laboratory**
	«**Determination of a high spatial resolution geopotential on coastal area using atomic clock measurements**»	
	Chronometric Geodesy - Programming (Python, Bash, Fortran)	
10/17 - 01/18	**Reasearch project**	**IGN, DPTS laboratory**
	«**Calculate the indetermination on the determination of speed on GNSS station which realised the ITRF 2014**»	
	Geodesy – Python Programming – Least-squares method– BigData	

Extra Curricular Activity

2020-2022	**Member of Committee4PhD, PhD & postdoc lab committee**	**ITES**
	Organisation of seminars and coffee breaks for PhD & postdoc	

Teaching

2019-2023	General introduction to geodetic systems for 3rd year engineering students (PPMD)	**ENSG**
2019	Coaching of computer programming projects for 3rd year engineering students Refresher course in geodesy and field school for 1st year technical degree students	**ENSG**
2020-2023	PhD additional education missions -Tutorial classes in space geodesy for 1st year engineering students (Radar & INSAR) -Tutorial classes in geodesy for 2nd year engineering students (GNSS & reference frames) -Tutoring classes in Mathematics for 1st year bachelor students -Practical work in Python applied to geodesy for 1st year engineering students -Field school for 2nd year bachelor students (LIDAR)	**EOST**

Collaborations

2020-2023	Member of the GRACEFUL project IPGP, ISTERRE, ITES, Uni. La Rochelle, Royal Obs. Belgium, MAGELLIUM Half-yearly meeting	**ERC Synergy Grant N°855677**
2020-2023	Active participation to gravity-toolkit python library Debugging and new functionalities implemented in the original T. Sutterley repository	**GitHub**

Publications

2023	Uncertainty of Low-Degree Space Gravimetry Observations: Surface Processes Versus Earth's Core Signal H. Lecomte, S. Rosat, M. Mandea, J-P. Boy, J. Pfeffer	**JGR: Solid Earth**
2023	Gravitational constraints on the Earth's inner core differential rotation H. Lecomte, S. Rosat, M. Mandea, M. Dumberry	**GRL**

Conferences
(full list on personnal website)

07/23	GRACE/SLR-based Gravity Field and the Earth's Core: New Estimates for Parameters of Key Core Processes (invited talk) H. Lecomte, S. Rosat, M. Mandea, M. Dumberry	**IUGG**
12/22	Observability of the Earth's core signals and geomagnetic jerks in GRACE-based gravity field. (poster) H. Lecomte, S. Rosat, M. Mandea, M. Dumberry	**AGU Fall Meeting**
10/22	Comparison of gap-filling temporal methods to improve GRACE and GRACE-FO time series. (presentation) H. Lecomte, S. Rosat, M. Mandea	**GSTM**
12/21	On The Detectability Of The Earth's Core Signal Using Space Gravity Measurements. (poster) H. Lecomte, S. Rosat, M. Mandea	**AGU Fall Meeting**
11/21	Comparaisons des solutions gravimétriques spatiales GRACE avec les surcharges hydrologiques. (presentation) H. Lecomte, S. Rosat, M. Mandea	**Colloque du G2**
10/21	Comparison of SWARM and GRACE time-variable gravity field at low degree spherical harmonics. (poster) H. Lecomte, S. Rosat, M. Mandea	**SDQW**