PERSONAL DETAILS

Timoté LOMBARD, 22 years old

Home address: Impasse des Combettes, "Le Sous-Mollard", 73 160 Vimines, FRANCE

Phone number: +33 07 63 71 54 00

Email: timotelombard@gmail.com

https://www.linkedin.com/in/timot%C3%A9-lombard-60b82417b/?locale=en_US

PROFESSIONAL OBJECTIVE

I'm looking for a final year foreign internship in research and science domain, preferably, with a specialization in space, aerodynamics or fluid dynamics sciences. I would be glad to share my proficiencies and my ideas in order to progress together.

WORK EXPERIENCE

PANEUREKA/Laboratoire de Météorologie Dynamique
Scientific research intern Apr-Sept 2021

Supervised by Dr. Luca Montabone and directed by the *Laboratoire de Météorologie Dynamique* planetology team: Dr. François Forget, Ehouarn Millour, Dr. Aymeric Spiga, Thomas Pierron etc. at the instigation of the *Centre National d'Etudes Spatiales* et the *European Space Agency*

Study of dust accumulation on and dust removal from solar arrays of landers and rovers on Mars

- Literature and state of the art studies
- Use of the OpenMARS database and the Martian Climate Database for the large-scale calculation of convective vortices and surface wind stress in combination with other atmospheric and engineering parameters

Validation and statistical analysis of the publicly available multi-annual observations of Martian opacity

- Verification of the matching between well-resolved dust storms in the daily maps of infrared opacity (derived from single opacity retrievals) and visible images of Mars (taken by orbiting cameras)
- Characterization of the climatology and statistics of the dust distribution in space and time, as observed in the CDOD maps, and comparison to the climatology and statistics derived from visible images available in the literature

EDUCATION

Master's Degree in aerospace and aeronautics systems
ELISA AEROSPACE 2022 (expected)

Major in aerospace & aeronautics sciences, mathematics and physics in order to become a space system engineer Currently, I'm in the last year and I'm valedictorian.

A-level in sciences with high honour
Vaugelas High School 2017

Topics studied are mathematics, physics, chemistry, biology, languages, French literature, history, philosophy, sport…my results were quite uniform and I graduated with highest honor.

PROFESSIONAL SKILLS

Languages:

French: mother tongue

English: upper intermediate (TOEIC 905)

Spanish: elementary proficiency/ conversational skills

Chinese: beginner

Computer literacies:

Pack office (Word, Excel, PowerPoint, Visio)

CATIA (3D modelling software)

MATLAB and SIMULINK (calculation and simulation software)

Computer programming with C++, Python

ANSYS FLUENT (fluid dynamics simulation and tool)

XFLR5 (analysis tool for airfoils, wings and planes)

Systems Tool Kit (orbital simulations)

QGIS/JMARS (geospatial information system)

Achievements:

Apollo atmospheric reentry study 2020-2021
https://youtu.be/BBLykSpeGYI

Study of the Lagrangian points of the {Sun-Earth} system
https://youtu.be/jaSeLEuLDIs 2020-2021

Complete design and study of a tactical missile type Exocet 2020-2021

Orbital simulations: Earth-Moon, Earth-Mars missions; Hohmann transfer; geostationary satellite etc. 2020-2021

Von Karman's street simulation and study 2019-2020
https://www.youtube.com/channel/UCD_0IbVrkNZN0S4narnWioQ

Study of the behavior of a particle in a unicellular flow
https://www.youtube.com/channel/UCD_0IbVrkNZN0S4narnWioQ 2019-2020

Computer-aided design of the American space shuttle 2019-2020

Design, Achievement and launch of a micro space rocket 2019-2020

Research paper on human and technology challenges for the first manned Martian mission 2018-2019

Research report on the potential future of humanity by means of exoplanets 2016-2017

References available upon request