Ryan Boukrouche

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I am a PhD student at the University of Oxford working on modeling the properties and evolution of rocky exoplanet atmospheres. I am looking to offer my skills to a position involved in planetary and exoplanetary climate characterization and future observations.

Education

DPhil in Atmospheric, Oceanic, and Planetary Physics | ***Climates of exoplanets*** — Oct. 2018 – Ongoing
University of Oxford — Oxford, United Kingdom

M.S 2nd year Planetary Sciences and Space Exploration — Sep. 2017 – Jun. 2018
Sorbonne Université, *With high honours* — Paris, France

M.S 1st year Applied Physics — Sep. 2016 – Jun. 2017
Université Pierre et Marie Curie — Paris, France

B.S Physics | ***Major: Physics, Minor: Mathematics*** — Sep. 2015 – Jun. 2016
Université Pierre et Marie Curie, *With honours* — Paris, France

Classes Préparatoires aux Grandes Écoles - *Maths, Physics, Engineering Sciences* — Sep. 2013 – Jul. 2015
Lycée Claude Fauriel — Saint-Etienne, France

French General Scientific Baccalaureate — Jun. 2013
Lycée Jean-Monnet, *With highest honours* — Saint-Etienne, France

Work Experience

Teacher at Oxbridge Academic Programs — 09 July 2021 – 24 July 2021
Cambridge University — Cambridge, UK

- Constructed a quality syllabus and associated budget for a two-week course aimed at students from high school to Masters level. This course was structured to give students an understanding of the history and current state of research in Planetary Science and Astrobiology.
- Taught a Major class to international students aged 13 to 17, six mornings a week from 9.00am to 12.30pm and three afternoons a week from 2.00pm to 4.00pm, for a total of 45.5 in-class hours.
- Helped organise and implement the arrival and departure of students from and to their home countries.
- Organised two guest speaker lectures and a visit to the Sedgwick Museum of Earth Sciences, Cambridge.
- Examined the students by taking into account academic skills, improvement, participation, and effort.
- Submitted grades and short reports for every student at the end of the course.

Research intern — 15 March 2018 – 27 July 2018
LESIA - Observatoire de Paris — Paris, France

- Explored the grain properties of the dust-rich debris disk HD141569 with observations from the SPHERE observatory
- Worked in the IDL language and used various data analysis techniques to interpret the observations
- Participated in an international collaboration that produced a publication

Research intern — 17 April 2017 – 21 July 2017
Institute for Geophysics and Meteorology of Cologne — Cologne, Germany

- Developed a model to simulate Uranus' multipolar magnetic field
- Performed magnetohydrodynamic simulations of Uranus' magnetic environment

Research intern — 11 January 2016 – 15 April 2016
Institut de Physique du Globe de Paris — Paris, France

- Quantified the soil surface roughness of selected terrains in Reunion Island and in the Asal-Ghoubbet Rift, Republic of Djibouti
- Performed photogrammetry experiments, analyses of Digital Terrain Models, and calculations of fractal dimensions using MATLAB

SKILLS

Languages: French (Native), English (Fluent), German (B1), Japanese (A1)
Programming: Python (NumPy, SciPy, Matplotlib, Pandas, Seaborn), MATLAB, Scilab, Java, C, Fortran, IDL
Document Creation: Microsoft Office Suite, LaTex