SEBASTIEN TETAUD

@ tetaud.sebastien@gmail.com in https://fr.linkedin.com/in/sebastien-tetaud +33 07 68 27 80 58 Paris, France

EXPERIENCE

Data Engineer for Earth Observation

CNRS, Polytechnique, Laboratoire de Météorologie Dynamique

November 2018 - 1 year contract — Paris, France

- Implementation of pipelines that ingest huge volumes of data from different geostationary satellites.
- Build and maintain pipeline systems for real-time geospatial data analyses to predict and support balloons trajectory for Straetol2 campaign.
- Automatic production of this work flow of data analysis.
- Detect, fix and improve existing pipelines of geospatial data analyses.
- Track, review, corrective maintenance, test, and validation with GitLab.

Junior Physics Engineer/ GUI-data engineer

CERN, European Organization for Nuclear Research

February 2018 - November 2018 — Geneva, Switzerland

- Study vacuum compatibility and outgassing of polymers in the LHC by building a custom ultra high vacuum test bench.
- Developing a graphic user interface in Python for automatized post-processing, data analysis and dynamic data visualization in Python for different types of instruments.
- Implement this GUI to the vacuum acceptance test lab to standardize test.
- Coordinate vacuum acceptance test for ELENA decelerator antimatter experiments.

Master Thesis (Data Analyst Engineer for space enviroment)

ESA, European Space Agency,The Payload Technology Validation section

March 2017 – September 2017 — Noordwijk, The Netherlands

- Impact of gamma rays on infrared detector for The Astronomy Large Format Array Activity, Ariel mission.
- Perform detector characterization pre and post-irradiation at cryogenic temperature and measure the annealing effect.
- Develop a user friendly pipeline of data analysis in Python for automatized post-processing, data analysis and images processing.

Undergraduate Internship (Applied Plasma Physics)

Lawrence Berkeley National Laboratory, Plasma Applications Groups

April 2016 – Aug 2016 — California, USA

Non-Evaporable Getter film coatings for next generation particle accelerator. Optimization of a getter thin film of TiZrV inside a copper tube by plasma sputtering deposition process by building an dedicated experiment.

Undergraduate Internship (Astrophysics laboratory)

Physikalische Institut at Westfälische Wilhelms-Universität

March 2014 – May 2014 — Münster, Germany

Hydrogen desorption from Graphite: Study the interaction between hydrogen and graphite with a laser as an idealized system to explore the mechanisms of the hydrogen conversion in the interstellar medium.

EDUCATION

MSc Astronomical Instrumentation, Computer Science

Paris-Sud 11 University/Observatoire de Paris

2018 — France

BSc of Physics

Paris-Sud University 11

2016 — France

COMPUTER SKILLS

Programming
Python, Bash, Cylc, Jinja2, C#, C, Matlab, Gitlab, MkDocs, Latex

Python Library
Numpy, Pandas, NetCDF, Hdf, Astropy, re, Beautifulsoup, Basemap, Cartopy, Bokeh, Seaborn, Plotly, Matplotlib, Sklearn, Tensorflow, PyQt5, os, glob, sys

Os skills/IDE
Unix-Linux, Windows/ Anaconda, PyCharm, Visual Studio, Eclipse

LANGUAGES

French ●●●●●
English ●●●●○
Korean ●○○○○
German ●○○○○

STRENGTH

Python | Geospatial data | Data analysis | Dynamic data visualization | Astronomical instrumentation | Space environment | Handy | Team spirit | Autonomous | Communication

INTERESTS

French Air Army Reservist, street workout, travel, machine learning, New space, CubeSat.

REFERENCE

Pierre-Elie Crouzet, ESA, The Netherlands
@ pierre-elie.crouzet@esa.int

Christina Yin Vallgren, CERN
@ christina.yin.vallgren@cern.ch

Andre Anders, LBNL, Berkeley Lab
@ aaders@lbl.gov

PERSONAL PROJECTS

- Web scraping for Cubsat market analysis
- Learn TensorFlow/SQL
- Project Birdy, Dynamic control of a CubeSat Attitude and Orbit Control System: Setting of functional tests for Attitude and Orbit Control System.