Cesar **Aybar**

Hydrology · Data Analytics

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"Make the change that you want to see in the world."

Education

UNMSM(National University of San Marcos)
Lima, Peru

B.Eng. in Geographical engineering
Mar. 2011 - Jan. 2015

- Finished inside the fifth upper

Experience

AguaAndes - PEER project
Lima, Peru

Assistant Research
Apr. 2014 - Mar. 2015

- Mapping of high-altitude wetlands located in the upper Rimac Catchment
- Development of modelbuilder in ArcGIS for spatial analysis tasks

National Water Authority of Peru
Lima, Peru

Junior hydrologist
Jan. 2015 - Apr. 2015

- Development of Python script for run the STREAM hydrology model in several catchments in Peru

National Service of Hydrology and Meteorology of Peru
Lima, Peru

Assistant Research
Apr. 2015 - Dec. 2018

- Construction of the first Gridded Rainfall Dataset (PISCOp) freely available for Peru
- Development of the mapping scripts used in the book: Climate and extreme events from the Central Altiplano of Peru and Bolivia
- Author of the methodology for mapping Life Zones in Peru, in coordination with the Peruvian ministry of the environment
- Hydrologist task automation using R and Python

Freelance
Lima, Peru

Freelance-Data analyst
Jan. 2019 - Present

- Manipulating, cleansing and processing sensible data using Python
- Responsible for loading client data
- Support for implementing CI/CD pipelines
- Carrying out specific data processing and statistical techniques

Capabilities & Skills

Languages

Python, R, JavaScript, C++ and Haskell

Software

Linux(Debian), Qgis, GRASS and SAGA GIS

Tools:

Rstudio, Emacs and Eclipse

Reproducible Research:

Git, SVN, Docker, Kubernetes

Capabilities

Deep learning for Computer Vision, Geostatistic, spatial data science & big data

Projects

Deep Learning

Monitoring crop areas in Arequipa using Tensorflow and Google Earth Engine - LINK

rgee

R binding library for Google Earth Engine - LINK

pal

A palette search engine - LINK

EEwPython

A series of Jupyter notebook to learn Google Earth Engine with Python- LINK

eecmip5

Download and manipulate CMIP5 climate simulations - LINK

PowerBI

Dashboard for geological evaluation request - LINK

Research

Aybar et.al, 2019

Construction of a high-resolution gridded rainfall dataset for Peru from 1981 to the present day.
Hydrological Sciences Journal LINK

Andrade et.al, 2018

Climate and extreme events from the Central Altiplano of Peru and Bolivia. LINK

Aybar et.al, 2018

Peruvian Life Zone. LINK