# Isabel María **Villalba Jiménez**

Github: mabelvi StackOverflow: mabel-villalba mabelvj@gmail.com

## SKILLS

- Python R
- Regular Expressions

LinkedIn: mabelvi

Website: mabelvj.github.io

- Scraping SQL
- Matlab
- HTML CSS
- XPath Unit Testing

#### **PYTHON**

- Scikit-learn Pandas
- Numpy statsmodels
- Matplotlib Seaborn
- Scrapy BeautifulSoup
- Quantopian Backtrader
- Jupyter-Notebook
- Tensorflow

#### **DATA SCIENCE**

- Statistical analysis
- Time Series
- Deep learning

#### OTHER

- Amazon Web Services (AWS) EC2
- Quantopian
- Linux GitHub
- ATEX markdown

# LANGUAGES

Spanish native

English

full-proficiency

Cambridge Certificate in Advanced English -CAE (C1) (2012)

intermediate French

## **FDUCATION**

MSc in Photonics 2013-2014

Polytechnic University of Catalonia (UPC) Institute of Photonic Sciences (ICFO), UAB, UB

Telecommunication Engineering (BSc + MSc) 2005-2012

University of Malaga

### **COURSES**

Data Analyst Nanodegree , November 2016 - June 2017

Machine Learning Engineer Nanodegree, July 2016 - November 2016 **Udacity** Google

Machine Learning Course 2016 Stanford University, © Coursera

Certificate: source

## **EXPERIENCE**

Data Scientist & Python Developer April 2017 - present

- Scrapinghub April 2019 present | Remote, full-time
  - Development of scraping software based on Scrapy. HTML, CSS selectors, XPath, XHR. Unit testing, production code, CI, cloud deployment.
- LISTedTECH January 2019 April 2019 | Remote
  - Development of a tool for retrieving information about universities. Data cleaning for database update. Scrapy. Regular expressions.
- Windsor Al November 2018 January 2019 | Remote
  - TV attritbuttions and ROI report generation using R and PostgresSQL.
- Arbuckle Capital September 2017 January 2019 | Remote
  - Algorithmic trading system in (Quantopian, Backtrader (Python)). Prediction of bull-bear periods and cluster volatility periods. Used GARCH models to predict volatility. Portfolio selection.
- SerpicoDEV June 2017 September 2017 | Remote
  - Implemented a prediction system in Python to determine prices changes in commodities from markets in the U.S.
- Mentor and Reviewer Udacity
  - Classroom Mentor April 2017 present | Remote, part-time
    - \* Provided on-demand support to the Machine Learning Nanodegree (MLND) and the Data Analyst Nanodegree (DAND) students.
    - \* 120 people under mentoring with average rating of 4.7
  - Project Reviewer April 2017 present | Remote, part-time
    - \* Helped students of the Deep Learning Nanodegree Foundation and the Artificial Intelligence Nanodegree in projects related to Neural Networks, Reinforcement Learning and Statistical Analysis.
    - \* 750+ projects reviewed with average rating of 4.93

Predoctoral researcher October 2015 - October 2016 | Barcelona Optical Communications Group (GCO)

- Polytechnic University of Catalonia (UPC)
  - Developed Python and Matlab scripts for the simulation of optical devices
  - Simulated wavelength shifter for optical networks units with 54dB side band rejection
  - · Designed new devices for highly efficient networks

# PROJECTS - SOURCE

#### • Contributions source

- Scikit-Learn

Fixed bugs and implemented new features.

- Pandas

Documented pandas.DataFrame.boxplot function.

- StackOverflow - profile

Answered questions related to python, pandas, sklearn, matplotlib, numpy, ggplot

- Stocks Dashboard in Bokeh source May 2018
  - Display time series automatically using Bokeh (Python).
  - Easy plot arrangement and format through a dictionary of parameters.
- Right Whale call recognition using Convolutional Neural Networks *source*November 2016
  - Training of Convolutional Neural Networks (ConvNets) models widely used for character recognition (LeNet5) for audio recognition. Detected up-calls with 0.95 Area Under the Curve (AUC).
  - Tensorflow, scikit-learn, python, pandas, numpy, csv, matplotlib