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Isabel María Villalba Jiménez

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Github: **mabelvj**
StackOverflow: **mabel-villalba**
Udacity: **isabelmaravillalbajimnez**

SKILLS

DATA SCIENCE

- Statistical analysis
- Supervised learning
- Unsupervised learning
- Reinforcement learning
- Deep learning
- Time Series
- t-test • ANOVA
- chi-squared test
- A/B test

PROGRAMMING LANGUAGES

- Python • R
- Matlab
- SQL • C++

OTHER

- Scikit-learn • Pandas • Numpy
- statsmodels • Matplotlib
- Seaborn • ggplot
- Scrapy • BeautifulSoup
- Quantopian • Backtrader
- IPython • Jupyter-Notebook
- Tensorflow
- Amazon Web Services (AWS) EC2
- Quantopian
- Linux • Ubuntu • GitHub
- LaTeX• markdown • Rmarkdown

LANGUAGES

Spanish	native
English	full-proficiency Cambridge Certificate in Advanced English - CAE (C1) (2012)
French	basic

EDUCATION

Data Analyst Nanodegree , *November 2016 - June 2017*
Udacity facebook mongoDB

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

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

Machine learning Course 2016 Stanford University, Coursera
Certificate: ***source***

EXPERIENCE

Data Science Consultant *September 2017 - present*

- Data Analysis and Machine Learning tasks via Upwork and other platforms. Also Software development of Python tools.
- Implemented a algorithmic trading system in Python and added Machine Learning techniques to distinguish bull-bear periods and cluster periods of volatility. Used GARCH models to predict volatility.

Machine Learning Engineer *July 2017 - October 2017 | Remote*
SerpicoDEV

- Data Science and Python development tasks: data wrangling and analysis, model selection and implementation.
- Implemented a predictor system im Python to determine prices changes in commodities from markets of the U.S.

Classroom Mentor *April 2017 - present | Remote, part-time*
Udacity

- 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 *January 2017 - present | Remote, part-time*
Udacity

- Helped students of the **Deep Learning Nanodegree Foundation** and the **Artificial Intelligence Nanodegree** in projects related to Neural Networks, Reinforcement Learning and Statistical Analysis.
- 650+ 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 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

- **Contributor to Scikit-Learn-** ***source*** *December 2017 - present*
  – Fixed bugs and implemented new features in the existing project of Scikit-Learn, a module for Machine Learning in Python.
  – For details see my GitHub Profile

- **Test a Perceptual Phenomenon -** ***source*** *December 2016*

  – Performed statistical test to analyze the Stroop effect, a classic result of experimental psychology.

  – t-test, ggplot, R, rmarkdown

- **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