Isabel María Villalba Jiménez

mabelvj@gmail.com

LinkedIn: **mabelvj**
Skype: **mabelvj**
Github: **mabelvj**
Website: **mabelvj.github.io**
Udacity: **isabelmaravillalbajimnez**

SKILLS

DATA SCIENCE

- Statistical analysis
- Supervised learning
- Unsupervised learning
- Reinforcement learning
- Deep learning

PROGRAMMING LANGUAGES

- Python • Matlab
- R • C++ • CSS

OTHER

- Scikit-learn • Pandas • Numpy
- Matplotlib • Seaborn • ggplot
- Tensorflow • Ipython-notebook
- Amazon Web Services (AWS) EC2
- 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

Udacity facebook mongoDB , November 2016 - in progress

MACHINE LEARNING ENGINEER NANODEGREE

Udacity Google , July 2016 - November 2016

MSC IN PHOTONICS

Polytechnic University of Catalonia (UPC) 2013-2014
Institute of Photonic Sciences (ICFO), UAB, UB

TELECOMMUNICATION ENGINEERING (BSC + MSC)

University of Malaga 2005-2012

COURSES

MACHINE LEARNING COURSE

Andrew Ng
Stanford University Coursera 2016
Certificate:
https://www.coursera.org/account/accomplishments/certificate/BDUV2MJT2P7T

PROJECTS

UDACITY GOOGLE | Machine Learning Nanodegree

- **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
- **Building a Student Intervention System -** ***source*** *July 2016*
  - Analysis of high school students dataset to plan interventions
  - Optimized supervised learning algorithms. Tuned logistic regression model using 'grid_search' and 'make_scorer'
  - Logistic regression, Support Vector Machines, Decision trees, scikit-learn, python, pandas, numpy, csv
- **Creating Customer Segments -** ***source*** *August 2016*
  - Analysis of customers annual spending on diverse product categories
  - Implemented feature scaling and detected outliers. Applied principal component analysis (PCA) and dimensionality reduction
  - k-means, scikit-learn, python, pandas, numpy, csv, matplotlib

EXPERIENCE

UDACITY PROJECT REVIEWER

Udacity January 2017 - present | Remote

- Helped students of the Deep Learning Nanodegree in projects related to Neural Networks and Statistical Analysis.
- Python, numpy, pandas, scikit-learn, csv, matplotlib, jupyter-notebook

PREDOCTORAL RESEARCHER

Optical Communications Group (GCO)
Polytechnic University of Catalonia (UPC) October 2015 - present | Barcelona

- 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