

Alonso Cano Villarreal

ELECTRONICS · MACHINE LEARNING ENGINEER

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Education

Science Sorbonne University, Paris VI

Paris, France

- Master's degree in Intelligent Systems, Image and Sound Processing
- Bachelor's degree in Electronics, Electrical Energy and Control Systems

Aug 2017 - Nov 2019

Aug 2014 - Jun 2017

Experience

Ixaya / Humble

Leon, Mexico

Deep Learning Engineer and Web Developer - Full-time

May 2020- present

- Management of two main projects: "Data extraction from documents" and "Data extraction from web scraping".
- Used Deep Learning and Image Processing techniques for document classification, image segmentation and text extraction.
- Created an API using Flask, AWS Lambda and EC2 instances in order to upscale production depending on requests.
- Used Selenium to create bots in order to download or extract data depending on the database missing information and CRUD database handling.
- The data extraction reduced form filling time from 10 min to 25 sec (in average) by allowing users to upload documents.
- The web scraping allowed database to maintain itself by extracting data from specific insurance companies.

SynFiny Advisors

remote, Mexico

RPA Developer - Part-time

Oct 2021- Oct 2022

- Created bots in order to automate Miniso's product placement.
- Developed the RPA processes with Automation Anywhere software.
- Upkept information on financial reports, item prices, quantities and internal data.
- Sped up processes from 2 hours to 15 min and eliminated repetitive tasks from end users.

AFD.TECHNOLOGIES

Paris, France

Machine Learning Project Manager - Full-time

Feb - Sep 2019

- Detect alarm anomalies on services provided by ORANGE France.
- Used unsupervised algorithms for anomaly detection of alarm systems.
- Evaluation of algorithms with statistical criteria according to dataset.
- PoC on models and implementation for testing phase.

Projects

- Trading bot using Linear Regression and weight assignment with Bitso's API and Python.
- Simulation and PoC of a flying autonomous airship with image processing techniques for visual odometry and line following, also the circuit was developed, most code used OpenCV, Python and ROS.
- 3D point cloud reconstruction with stereo images using Python and OpenCV.
- Implemented Dijkstra's algorithm to the Parisian subway network considering transfer times and PoC with RTP's website using C++.
- Creation of a web page using CodeIgniter and CRUD database handling in PHP and Java for Copimex.
- Car plate detection and OCR extraction in order to simulate access to specific cars.
- Face landmark detection for employee assistance using OpenCV with Python.

Skills

Machine Learning

- Supervised - SVM, Random Forest, Knn, Linear regression, NLP, AdaBoost
- Unsupervised - DBSCAN, Isolation Forest, LOF

Deep Learning

- Pytorch - CNN, RNN, Fine-tuning

Programming

- Python - Numpy, Pandas, OpenCV, Scikit-learn, Scipy, Torch, Torchvision, Tensorflow
- iPython Notebook, C++, Java, SQL

Software

- Github, Subversion, Anaconda, Spyder, Matlab, Automation Anywhere, Jenkins, Selenium

Languages

- Spanish: Native • English: Fluent • French: Fluent

Others

- 3D Modelling, design and printing with Fusion 360
- Strong coding ability for developing, debugging and understanding
- Great problem solver