

Axel Mendoza | Data Scientist

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 website  github  blog  linkedin  mail

*Data Scientist with two years experience in
AI research seeks a full time opportunity in Paris*

Skills

Programming Skills:

Python









C++

SQL

Frameworks and Tools: PyTorch TensorFlow Keras
OpenCV Scikit-Learn Numpy Pandas Matplotlib Docker
AirFlow Celery Git Unix

Deep Learning: Computer Vision for Medical Imaging,
Object Re-Identification and Tracking, Autonomous
Driving and Reinforcement Learning.

Machine Learning:

- Support Vector Machines 
- Decision Trees, Random Forests, AdaBoost 
- K-means, Guassian Mixture Models 
- Naive Bayes 
- K-Nearest Neighbors 
- Polynomial Regression 
- Logistic Regression 
- Linear Regression 

English: Fluent

lived in the US

Spanish: Bilingual

hispanic origins

French: Native

mother tongue

Projects

Autonomous RC Car 2017

Python, Keras, OpenCV 12 months

- Built a remote-controlled car able to predict speed and steering angle in real-time from an embedded camera.
- Participated in tournaments and got 3rd at **IronCar** Summer 2018 and 1st at **RobotCars** Winter 2018.

Machine Learning Blog 2020

PyTorch, Numpy, Pandas, Seaborn 3 months

- From scratch implementation of the most used algorithms in machine learning.

Image Processing GPU 2016

CUDA C++ 1 month

- Implemented edge detection and de-noising algorithms from scratch on GPU.

Experience

SIEMENS US 2019

Machine Learning Intern, Princeton 14 months

- Improved physician diagnosis of heart disease by creating a coronary calcium detector trained on CT scans using Unet with Pytorch.
- Improved heart disease diagnosis even further by classifying calcium in high and low risk arteries.
- Optimized model complexity to fit hospital needs by designing a faster approach using ResNet3D.
- Enhanced detection of mitral valve regurgitation by creating a blood flow dealiasing model using Unet trained on 3D color doppler data using Pytorch and C++.
- Adapted reinforcement learning **paper** for real-time 3D landmark detection of new anatomies.
- Automated the training of these algorithms using AirFlow workflows and Celery.

ENGIE 2018

Machine Learning Intern, Paris 7 months

- Improved security of power-plants by designing a multi-camera vehicle re-identification and tracking system using Keras and TensorFlow.
- Implemented 2018 **state-of-the-art** solution and improved mean average precision by **6%** by adapting a pedestrian re-id **paper** to vehicle tracking.
- Designed a framework to automatically re-train on different objects like pedestrian, faces, ect...
- Collaborated with the best researchers in the field after being invited to **ECCV** 2018.

SAP 2016

Software Engineering Intern, Paris 5 months

- Improved the quality of an excel pluggin by designing an automatic testing platform using SQL and Python.

Education

EPITA 2018

Computer Science, Data Science Major 5 years

- **Top 1** computer engineering master degree and most prized machine learning program in France.

Sejong University - South Korea 2015

Computer Science, Seoul 6 months

- Exchange student program at Sejong University.