Axel Mendoza — Computer Vision Engineer

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🌐 website   github   blog   linkedin   @ mail

*Deeply passionated with Computer Vision
and challenging projects*

Skills

Programming Skills:

Python	C++	SQL

Frameworks and Tools: PyTorch TensorFlow Keras OpenCV Sklearn Numpy Pandas Matplotlib AirFlow Git Linux

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

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*

Papers

Deep learning for vessel-specific coronary artery
European Heart Journal, 2021
- Co-author for Oxford University at Siemens.

Projects

Autonomous RC Car   **2017**
Python, Keras, OpenCV   *12 months*
- Remote-controlled car that predicts speed and steering angle in real-time.
- 3rd at IronCar Summer 2018 and 1st at RobotCars Winter 2018 tournaments.

Experience

Storelift   **Dec 2020**
Computer Vision Engineer, Paris   *Current*
- In charge of redesigning the person tracking and re-identification system of an autonomous grocery store.
- Improved the vision systems by creating a semi-automatic annotation pipeline.

Siemens US   **Apr 2019 - Jun 2020**
Computer Vision Engineer, US   *14 months*
- Improved physician diagnosis of heart disease by creating a coronary calcium detector trained with Unet and Pytorch.
- Improved heart disease diagnosis 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++.
- Automated the training of these algorithms using AirFlow and Celery.

Engie lab Crigen   **May - Nov 2018**
Computer Vision 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.
- Collaborated with the best researchers in the field after being invited to ECCV 2018.

SAP   **Feb - Jul 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   **Apr 2018**
Computer Science, Data Science Major   *5 years*
- Top 10 computer engineering master degree and machine learning program in Paris.