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	SQL	C++

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

BOXY **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 **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 **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.