

# Sylvain Marchienne

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**Looking for a full-time position in Data Science and Machine Learning after graduation in May 2020,**  
focused on bringing useful and valuable predictive features using advanced Machine Learning models.

## EDUCATION

### GEORGIA INSTITUTE OF TECHNOLOGY

2019 - May 2020

M.S. in Computer Science with Machine Learning concentration, GPA 3.75/4

### UNIVERSITY OF TECHNOLOGY OF COMPIÈGNE, FRANCE

2013 - 2018

B.S. and M.S. in Computer Science with Data Science concentration, GPA 3.95/4

## EXPERIENCE

### GOPRO · RESEARCH MACHINE LEARNING INTERN

May 2019 - Oct 2019

Internship, Paris (France)

Designed Deep Learning models for the automatic video editing tool within the GoPro app. Used video summarization and highlight detection research avenues to predict key shots in GoPro users' videos.

- Analyzed, visualized and cleaned historical data, then defined a metric to assess prediction performances
- Trained highlight detection models for GoPro videos (Random Forest, DNN, LSTM, Deep Reinforcement Learning)
- Designed and experimented different losses (pairwise and pointwise ranking losses, supervised and self-supervised)

Deep Learning · Reinforcement Learning · Tensorflow · Pandas · Scikit-Learn · OpenCV

### CRAFT AI · MACHINE LEARNING INTERN

Feb 2017 - Aug 2017

Internship, Paris (France)

Worked in partnership with the City of Paris on a predictive solution to improve waste collection management.

- Predicted waste collection trucks arrival times in the streets of Paris using explainable decision trees
- Implemented and put into production an API for training, validating and exposing models
- Spoke at the Paris Intelligence Artificielle Meetup #3 about personalized UI/UX using Machine Learning

Timeseries · Decision trees · Pandas · Numpy · Scikit-Learn · Nodejs · Redis · Docker · AWS

## PROJECTS

### TIMESERIES PREDICTION OF SALES

Sep 2018 - Dec 2018

Trained Machine Learning models to forecast day to day sales of different products, with an API access to predictions.

Timeseries · Data Visualization · Keras · Scikit-Learn · Flask · Docker

### ANOMALY DETECTION ON INDUSTRIAL IMAGES

Mar 2018 - Jun 2018

Implemented a Deep Learning one-class classification model for anomaly detection of images (open-sourced).

Deep Learning · One-Class SVM · Tensorflow · Scikit-Learn

### MACHINE LEARNING BASED TOUR GUIDE MOBILE APPLICATION (HACKATHON)

Dec 2017

Applied spatial clustering on social networks data to infer the best points of interest. Won the Data Analysis award.

Machine Learning · Clustering algorithms · Scikit-Learn

## LEADERSHIP

### CO-FOUNDER OF THE DATA SCIENCE STUDENT ORGANIZATION

Feb 2017 - Dec 2018

Founded the first Data Science student club of the University of Technology of Compiègne. Organized conferences and workshops. Taught Machine Learning basics to students. Learned to manage a team and communicate effectively.

## SKILLS

**Relevant coursework:** Statistical Learning, Machine Learning, Deep Learning, Data Visualization, Advanced Algorithms, Relational Databases, Object-Oriented Programming, Computer Vision, Autonomous Robotics, Numerical Linear Algebra, Optimization, Stochastic Modeling

**Research interests:** Video Summarization, Highlight Detection, Timeseries, Recommendation

**Programming:** proficient with Python, R, SQL, C/C++ and familiar with Javascript, Java, Objective-C

**Online courses:** Deep Learning (Coursera), Machine Learning (Coursera), R Programming (Coursera)

**Languages:** French (native), English (full proficiency), Spanish (limited proficiency), Chinese (beginner)