Martin **Cepeda**

linkedin.com/in/cepedus (+33) 6 13 74 34 85 martin.cepeda@polytechnique.edu
75 Boulevard des Maréchaux, Bâtiment 75 Appartement 75.20.15, 91120 Palaiseau, France
cepedus.github.io

Targeting a 5 month, R&D centered internship on AI & Computer Vision, starting end of March 2020

Education

2019 to 2021 **École Polytechnique**, M. of Science and Technology in Artificial Intelligence & Advanced Visual Computing
2018 to 2020 **École Polytechnique**, Cycle Ingénieur Polytechnicien (MSc in Informatics). Current GPA 3.42/4.0
2015 to 2017 **Pontifical Catholic University of Chile**, B.S in Electrical Engineering, Minor in Electronics and Telecommunications. Ranked 9th out of 823 students in my class

Technical Highlights

Internships:

- **Institut Louis Bachelier DataLab** (Paris, France, 3 months) as Data Scientist Intern. I created a semi-supervised document classifier using pre-trained GloVe embeddings and clustering algorithms in Python.

Projects:

- **At École Polytechnique:** Shape classification using Laplace-Beltrami operator decomposition ● Vanilla 3D scanner using a laptop webcam ● Anomaly Detection in Videos using CNNs ● Prediction of signal peptide cleavage site by SVM
- **At UC (Chile):** Robot arm simulation and control ● Web crawler and parser for a linguistics study ● Switching-Mode Power Supply embedded software and hardware ● OpAmp design and testing

Relevant courses:

- **Deep Learning in Computer Vision** (revision of image-oriented CNNs, PyTorch)
- **Algorithms for Data Analysis in C++** (k-NN, regression/classification, density estimation, hierarchical clustering)
- **Algorithmics** (greedy, dynamic programming, divide & conquer, graphs, flows in networks, local search, linear programming)
- **Computer Vision** (OpenCV, feature detection, segmentation, object recognition, motion estimation, 3D vision)
- **Geometry Processing:** curves, meshes and shape analysis in a combinatorics and graph-centered manner.
- **Machine Learning:** both algorithmic and mathematical basis of supervised/unsupervised learning, data preprocessing, feature selection and dimensionality reduction.

Languages

- **Spanish** Native
- **French** Fluent in all skills (C2 TCF)
- **English** Fluent in all skills (930/990 TOEIC)

Programming Languages

- **Python** 4 years
- **C++** 2 years
- **MATLAB, Mathematica, Arduino** as accessory code

Other Activities

Today – Jan 2018 **Student life, activities and sports, École Polytechnique**
"Crôtale de section" Ultimate 2017 ● Student associations such as X-Passion, HispaniX and Ultimate

Jan 2018 – Jun 2017 **Undergraduate Investigation, supervising professor Miguel Nussbaum, PUC**
School Students' Efficacy: Adapted database formats to apply under-development models to better understand the lowest-performance schools in Chile.

Dec 2017 – Mar 2015 **Teaching Assistant, Mathematics, Sciences and Engineering courses, PUC**
Electromagnetism Laboratory, Electrical Circuits, Quantitative Reasoning, Precalculus, Physics levelling program for freshmen students, Introduction to Programming, Calculus I, General Chemistry II. On average 50 students per course.