Martin **Cepeda**

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Education

2019 to 2021 **École Polytechnique**, M. of Science and Technology in Artificial Intelligence & Advanced Visual Computing. *"Bourse d'excellence de la Fondation de l'École Polytechnique"* laureate. *GPA 3.87/4.0*

2018 to 2020 **École Polytechnique**, Cycle Ingénieur Polytechnicien (MSc in Informatics). *GPA 3.59/4.0*

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 ●Optimal area polygonalizations in R^2 ●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:** image-oriented CNNs in PyTorch
- **Machine Learning:** Practical and theoretical basis for supervised, unsupervised and reinforcement learning methods.
- **Algorithmics:** Complexity and correctness analysis of several algorithmic paradigms: greedy, dynamic programming, local search, divide & conquer, etc.
- **Computer Vision:** Classical techniques such as feature detection, segmentation, object recognition, motion estimation and 3D vision. Done in OpenCV for C++.
- **Geometry Processing & Computational Geometry:** curves, meshes,shape analysis, triangulations, graph algorithms and optimal data structures.

Languages

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

Programming Languages

- **Python** 5 years
- **C++** 2 years
- **MATLAB, Mathematica, Arduino** 1 year