Baptiste Abeles

Machine Learning Engineer (Mines - ENS)

Born in Paris on 03/25/2000. 192 Carrer Lepant, Barcelona.

tel: +33 7 81 46 57 16, email: baptistabeles@gmail.com, twitter: @baptistabeles.

Education Awards

PhD of Machine Learning, University Pompeu Fabra (UPF), Barcelona.

2023 -

PhD supervised by Gergely Neu.

The PhD research is about proving generalization bounds under non-i.i.d assumption in various settings. It also aims at getting a better understanding of the underlying connection between online learning and generalization.

Master's degree MVA (Mathematics, Vision, Learning), ENS Paris-Saclay.

2022 – 2023

Applied Mathematics for Artificial Intelligence: Deep Learning, Optimization, Computational Statistics, Time Series, Object Recognition, Optimal Transport, Bayesian Machine Learning, Sequential Learning.

National Graduate School of Ecole Nationale Supérieure des Mines de Saint-Etienne (EMSE).

2020 - 2023

Data Science, Statistics and Probabilities, Machine Learning, Quantum Physic.

Mathematic degree with distinctions, Jean Monnet University, Saint-Étienne.

2020 - 2021

Measure theory, algebra, differential calculus, topology, probabilities and complex analysis.

Classes préparatoires, Lycée Fénelon, Paris.

2017 - 2020

Three years of undergraduate studies in mathematics, physics and engineering sciences. Intensive preparation for highly selective entrance exams to French « Grandes Ecoles d'Ingénieurs ».

Scientific Baccalaureat with distinctions, Lycée Fénelon, Paris.

2017

Equivalence of High School certificate, Specialty Mathematics.

Relevant Experience

Teaching Assistant, University Pompeu Fabra, Barcelona, Spain.

January 2024 - March 2024

Linear Algebra Machine Learning Research Intern, Paris, France.

April 2023 - Septemb

Internship carried out at Sorbonne Université financed by Viking Conseil.

Research Topic: Design an algorithm for adaptive power consumption forecasting based on a latent space model representation. Internship supervised by Joseph de Vilmarest (Viking Conseil CEO) and Olivier Winterberger (Doctor at Sorbonne Unviersité).

Machine Learning Research Intern, Buenos Aires, Argentina.

June 2022 - August 2022

Internship carried out at San Martin University.

 $Research\ Topic:\ Source\ separation\ methods\ for\ exoplanet\ detection.$

Internship supervised by Rodrigo Diaz and Daniel de Florian.

Operator Internship, *RATP*, Charonne Workshop.

Jan. 2021

Private Mathematics Tutor.

2019 - 2022

JSCPO, Football Coach.

2016 - 2017

Academic projects

PRICE Project: Time Series and Algorithmic Trading, EMSE.

Sep. 2021 - Mar 2022

Work on the development of an RSI divergence detection algorithm and determination of its quality

Technical Project: Modeling of hydrogen diffusion and trapping, EMSE.

Sep. 2021 - Janv 2022

Development of an algorithm for solving kinetic equation differential systems.

Classes Préparatoires Project (TIPE): Study of braid theory, Lycée Fénelon, Paris.

2018-2019

Development of an algorithm to determine if two braid words are isotopic.

Skills

Linguistic

Programming

Anglais: C1 Level (TOEIC: 935/990).

LaTeX, Python: Good proficiency.

Espagnol: C1 Level.

Matlab, Shell Programming and R: Intermediate level.

C et Java : Beginner Level.

Interests

Sports and Music: Football (15 years) regional level. Great fan of sports in general and sports history. Piano (10 years).

Associations: Vice-President of the CARTEL 2022 Association: sports responsible for organizing inter-school Olympiads of

Mines.

Others: Chess, Scientific Popularization, Philosophy, Oenology.