Tristan Dot

Curriculum Vitae

Education

2020–2021 **Pantheon-Sorbonne University**, *B.A. in art history and archeology - Highest Honors.*
Relevant courses: Historiography of art history, Artistical institutions, Ancient Greek art, Gothic arts, The Renaissance in France and Italy, Artistic creation in the 18th century, 19th century, 20th century, History of Photography, Contemporary art.

2019–2020 **ENS Paris-Saclay**, *M.Sc. in applied mathematics, Math., Vision, Learning (MVA) - Highest Honors.*
Relevant courses: Computer vision and object recognition, Convex optimization, Probabilistic Gaphical Models, Topological Data Analysis, Reinforcement learning, Computational statistics, Algorithms for speech and NLP, Bayesian machine learning.

2018–2019 **Mines ParisTech**, *M.Sc. in engineering & applied mathematics - University exchange, Highest Honors.*
Minor in Geostatistics and Applied Probabilities.
Relevant courses: Statistical learning, Data analysis, Image analysis, Introduction to Law, Labor Law, Cost Accounting, Corporate Governance, Quantum Information.

2016–2018 **Mines Saint-Etienne**, *M.Sc. in engineering & applied mathematics - Highest Honors, Top 10%.*
Relevant courses: High Performance Computing, Network Architecture, Big Data, Signal Processing, Numerical Analysis, Statistics, Micro & Macro Economics, Quantum Physics, Fluid Mechanics.

2013–2016 **Lycée Henri IV**, *Classe préparatoire, PCSI & PC* - Paris, France.*

Work experiences

October 2020 – July 2021 **Research engineer**, *Part-time: 2 days a week, Observatoire de Paris, CNRS, SYRTE.*
Affiliation: ALFA Laboratory, DISHAS team
Project: Astronomical medieval tables structure recognition, and hand-written text recognition.

April – August 2020 **Graduate research assistant**, *Observatoire de Paris & Ecole des Ponts ParisTech, SYRTE & Imagine.*
Supervisors: Matthieu Husson, Mathieu Aubry
Project: Segmentation of medieval manuscripts, table structure recognition - in collaboration with historians of science.

April – Augus 2019 **Graduate research assistant**, *ENS Paris-Saclay, Borelli Center.*
Supervisors: Laurent Oudre, Nicolas Vayatis
Project: Multimodal analysis of locomotion: detection, recognition and classification of patterns (time series).

June – August 2018 **Undergraduate research assistant**, *Pasteur Institute, Center of Bioinformatics & Biostatistics.*
Affiliation: Evolutionary Bioinformatics Laboratory
Supervisors: Olivier Gascuel, Mathieu Moslonka
Project: Prediction of epidemiological parameters from ARN viruses genetic trees, using deep neural networks.

Research publications

2020 **Non-Linear Template-Based Approach for the Study of Locomotion**, ***Tristan Dot***, *François Quijoux, Laurent Oudre, Aliénor Vienne-Jumeau, Albane Moreau, Pierre-Paul Vidal, David Ricard*, Sensors 2020, 20, 1939.

2019 **Deep learning from phylogenies to understand the dynamics of epidemics.**, *Jakub Voznica, Anna Zhukova,* ***Tristan Dot****, Kary Ocaña, Frédéric Lemoine, et al..*, Epidemics - 7th International Conference on Infectious Disease Dynamics, Dec 2019, Charleston, United States.

Teaching

March 2021 **Project teacher**, *Digital Humanities Meet Artificial Intelligence*, PSL & ENS Master Course, Intensive Week.

Programming skills & artistic projects

Programming: Python (inc. PyTorch), C, R, Matlab, LaTeX.

Artistic projects:
- **Video program** of a play by the director Julien Avril, with the "Scène de la Recherche" of ENS Paris-Saclay: facial detection, DeepDream, first order model. Theatrical performance scheduled for **May 2021**.
- **Video artworks**, through generative networks, reflecting on the notion of images as digital data, and questioning the ethics of AI - artworks selected for the upcoming online **Computer Vision Art Gallery**.

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