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https://pauldubois98.github.io

PAUL DUBOIS

PROFILE

*With a **mathematical** background, I am passionate about **technology** since high school.*
*I am committed to teaching, and leveraging **science** for a better world.*

EXPERIENCE

(PART TIME) PHD CANDIDATE, CENTRALESUPÉLEC, THERAPANACEA Oct 2021 – Dec 2024
Developing adaptive radiotherapy optimization, using Artificial Intelligence.

(PART TIME) FREELANCE DATA SCIENTIST   Oct 2021 – Dec 2024
Various data science projects.

INTERN, ROOM FURNISHER   July – Sept 2020
Created the MVP of the startup, bringing together open-source projects.

INTERN, AIRBUS   Jun – Sept 2019
Designed tools for process automation using SQL, {HTML, CSS, and JS}, and Python.

KITCHEN CLERK, RESTAURANT "LA PLAGE"   Jun – July 2018

DISHWASHER, RESTAURANT "LA PLAGE"   Jun – July 2017
Skills gained: Teamwork, working under time pressure & efficiency.

EDUCATION

MSC MATHEMATICAL SCIENCES, OXFORD UNIVERSITY   Sept 2020 – July 2021
Grade average 68% (merit)
Courses: Analytic Topology, Category Theory, Approximation of Functions, Theories of Deep learning, Networks, Random Matrix Theory.
Dissertation on Random Fractals and Branching Processes.

MSCI MATHEMATICS, UNIVERSITY COLLEGE LONDON   Sept 2016 – July 2020
Grade average: 85% (first)
Key courses: Probability, Measure Theory, Spectral Theory, Functional Analysis, Multivariable Analysis, Differential Geometry, Analytic Number Theory, Graph Theory and Combinatorics, Elliptic Curves, Commutative Algebra, High-Performance Computing, Evolutionary Games and Population Genetics.
Research project on Modular forms mod 2: "Governing Fields for the Hecke Algebra".

TEACHING

DEEP LEARNING, CENTRALESUPÉLEC (PARIS)   Jan – Apr 2023, Jan – Apr 2024
Course for 5th year master engineering students, taught in French.
Content: deep learning from scratch (back-propagation), perceptron, convolutions, optimizers & learning rates, RNN, U-net, V-net, GANs; with Kaggles created as homework.

MATHEMATICS, ESSEC (CERGY)   Sept 2021, Sept 2023, Sept 2024
"Mathematics Refresher" course for DSBA (Master Students), taught in English.
Content: basic methodologies for proofs; linear algebra, differential calculus, integration, and asymptotic analysis; prerequisites of the courses in the master.

DATA ANALYSIS, IRONHACK (BARCELONA)   July – Aug 2023
9 weeks bootcamp, taught in English.
Content: Python, SQL, Web Scraping, Tableau, Probabilities & Statistics, Basics of AI/DL.

TUTORIAL SESSIONS, CENTRALESUPÉLEC (PARIS)   Oct 2021 – Dec 2024
Coding, Optimization, Algorithms & Complexity, Computer Science; taught in French.

OTHERS

French (Native Speaker); **English** (Fluent); ***Driving License** (since 2017)*
GitHub repository: https://github.com/pauldubois98