Ambroise RENAUD
Data Scientist

in linkedin.com/in/ambroiserenaud ambroise-renaud.fr github.com/ambroisernd

+33 6 46 42 12 11 @ ambroise.renaud@gmail.com

 Toulon (83200), France

i Born : 04/08/1997 at Nice, France

Graduated from École Nationale Supérieure d'Ingénieurs Sud Alsace (ENSISA), I am specialized in Computer Science. In addition to that, I did several internships in the fields of Machine Learning and Data Science, topics I deepened during my academic exchange at the Swiss Federal Institute of Technology in Lausanne (EPFL). I have a great interest in research, especially artificial intelligence applied to time series data. I love working on real world project involving state of the art technologies and using my knowledge to solve data analytic problems. I am actively looking for data scientist position in the industry and R&D.

EDUCATION

2019 - 2020	**EPFL (École polytechnique fédérale de Lausanne)** *Exchange Year | Machine Learning, Data Science, Learning Analytics, Mathematics of Data, Optimization for machine learning, Systems for data science, Deep learning, Advanced algorithms.* **Overall score : 5.25/6**
2017 - 2020	**Ecole Nationale Supérieure d'Ingénieurs Sud Alsace ENSISA** *Engineer's degree in Computer Science & Networks*
2015 - 2017	**Institut Stanislas Cannes** *CPGE PCSI-PSI, Physics, Mathematics, Automation. (Two-year highly selective classes to prepare for the competitive exams to the Grandes Écoles.)*
2012 - 2015	**Lycée Mont Saint Jean** *Baccalauréat S, Mathematics, Life Sciences*

EXPERIENCE

January 2021 July 2020	**Data Scientist Intern, NAVAL GROUP - CEMIS (CENTRE OF EXCELLENCE FOR INFORMATION AND SIGNATURE MANAGEMENT), France** Internship at Naval Group Ollioules CEMIS : Optimization of Artificial Intelligence Algorithms for systems integrity, applied to Naval Defense. > Linear Algebra > Probabilities > Machine Learning > Evolution strategy (ES), genetic algorithms (GA) and differential evolution (DE) `Python` `Pytorch` `Elasticsearch`
September 2019 June 2019	**Research Intern | Data Knowledge and Operational Effectiveness, NATO STO-CMRE - CENTRE FOR MARITIME RESEARCH AND EXPERIMENTATION, Italy** Internship at The North Atlantic Treaty Organization (NATO) : > Machine learning classifiers applied to Automatic Identification System (AIS) data. (Random Forest, Decision Tree, Perceptron, KNN, Logistic Regression, SVM) > Feature selection > Hyperparameter optimization > Data analysis > Data Mining `Machine Learning` `Data Science` `Data Mining` `Python` `LaTeX`
September 2018 June 2018	**Data Engineering Intern, CRC MINES PARISTECH - RISK AND CRISIS RESEARCH CENTRE, France** Internship at the Risk and crisis research centre (CRC) : > Data collection (deployment of an Automatic Identification System (AIS) station, Web scraping) > Data analysis > Data warehousing (PostgreSQL) > Java development `Java` `NodeJS` `PHP`

🌐 Languages

French	Native
English	TOEIC 960/990

➕ Strengths

> Independence
> Decision making
> Time management

☰ Skills

Python	Hands-on experience : internships, labs and semester projects focusing on implementing Machine Learning and Deep Learning models using Pytorch, sklearn, NumPy, Pandas or PySpark for cluster-computing.
Mathematics	Convex formulation for data analytics problems, optimization and statistical analysis.
Software engineering	Theoretical courses as part of Engineer's Degree in Computer Science and Networks. Familiarity with modern software engineering best practices (version control, unit testing, design patterns and code writing convention).
Others	Java, C++, SQL

🖥 Projects

Self-supervised learning for MRI sampling
Feb 2020 – Jul 2020

Master semester project at EPFL Laboratory for Information and Inference Systems – LIONS.
Create a clean PyTorch re-implementation of a cutting-edge reinforcement learning based sampling algorithm. Deliverable were a well documented codebase including tests as well as a clear and legible report.

Python Pytorch Reinforcement Learning

A deep learning approach to predict children inductive reasoning strategies
Sep 2019 – Feb 2020

Master semester project at EPFL Computer-Human Interaction for Learning & Instruction laboratory - CHILI
This project focused on predicting children's next answers given their previous ones in a quiz environment. This projects covered models and methods to prepare temporal data and implement recurrent neural network for training and inference.

Python Keras Pytorch

Determine hormone signalling activation in human breast cancer samples
Oct 2019 – Dec 2019

🔗 https ://github.com/ambroisernd/epfl-breast-cancer-ml-project
Machine Learning project at EPFL Swiss Institute for Experimental Cancer Research - Brisken laboratory. The goal was to use data collected by the laboratory to cluster patients according to their cells receptivity to hormones given their gene expression.
Best Machine Learning project award.

Python Sklearn NumPy Pandas

Exploring French National Trafic injuries data
Oct 2019 – Jan 2020

🔗 https ://epfl-ada-project.github.io/
Applied Data Analysis project at EPFL. The goal was to explore a dataset provided by the French road safety observatory (ONISR), composed of more than 474,000 accidents from 2005 to 2018. Deliverable were : Python code & notebooks, a website, a poster.

Python Pandas NumPy Scipy.stats Seaborn

Learning to discover : The Higgs Boson Machine Learning Challenge
Oct 2019 – Nov 2019

Project 1 of Machine Learning course at EPFL
Solve the Higgs Boson Machine Learning Challenge without using any deep learning or machine learning library.

Python NumPy

Generating music with artificial intelligence (neural approach)
Apr 2019 – Jun 2019

🔗 https ://github.com/ambroisernd/projet2AMusic
Semester project at ENSISA. Given a patern of n notes, a neural network automatically generate the end of the song.

Python Keras

❝ References

Dr. Vincent Martin
Data Scientist,
Naval Group RESEARCH
vincent.martin@naval-group.com
+33 6 49 93 67 88

Dr. Aldo Napoli
Research Director,
CRC - MINES ParisTech
aldo.napoli@mines-paristech.fr
+33 4 93 67 89 15

Prof. Volkan Cevher
Associate Professor,
LIONS - EPFL
volkan.cevher@epfl.ch
+41 21 693 11 01