# Engineer in Computer Science

# Yann Cauchepin

Born the 1997-30-06, 25 years old

Nationality: French & Swiss



11A Chemin du loup, 74160 Saint-Julien-en-Genevois

**J** 06 11 63 87 64

☐ cauchepin.yann@gmail.com

A Driving license, Car

# Education

2018 - 2021	Engineer's degree in Statistics and Computer Science	Engineering school Polytech, Lille, France
2017 - 2018	Engineer's preparatory class	Engineering school Polytech, Grenoble, France
2015 - 2017	Common core year for health studies (PACES)	University Joseph Fourrier, Grenoble, France

# Projects & Experience

08.2021 - 03.2021	Reinforcement Learning for Combinatorial Optimization Creating from scratch a realistic and adaptable environment with economic and sanitary evaluations for a multicriteria optimization. Static and dynamic digitalization of a society. Autonomous work. Python, SumoMobility, Openstreetmap.	University of Luxembourg, Esch-sur-Alzette, Luxembourg
02.2021 - 10.2020	<b>Deep Neural Network Optimization, Machine Learning</b> Forecasting of energy consumption in partnership with EDF R&D. Simulated annealing, Genetic algorithm, Convolutional layers. Python, Keras, Tensorflow, Deap packages, GRID5000 network, MPI.	Engineering school Polytech, Lille, France

# Knowledge & Skills

### Artificial Intelligence, Machine Learning

Unsupervised, Supervised and Reinforcement learning, Convolution, Neural network. Scikit-learn, Keras, Tensorflow framework.

### **Optimization**

Modeling difficulties, Graphs and combinatorics, Advanced algorithms for optimization and decision, Metaheuristic, Lindo software.

### Programming, GUI, Systems

Data structure and Object-oriented programming. C++/C, Python, Java languages, Translators, Latex. wxWidgets, Unix system, Multithreading, Github.

## High-performance computing, Distributed processing

Parallelization, Using GPUs, MPI language. High performance matrix computation methods, PageRank.

### Software engineering

Patterns, Metamodeling, UML, Modelio software.

# Az Languages

French Native language

**English** Degree B2/C1 **TOEIC** score : 945

**German** Beginner

### **Data Science, Statistics**

Data preparation, Management of missing data, Time series analysis and forecasting, AR, MA, ARIMA, Markov process, Advanced modeling, Interpolations and curve fitting, Classification and clustering, ACP, ACM, AFC, Multiple, polynomial and regularized regression, Exploratory, inferential and descriptive statistics, R, RMarkdown languages, RStudio software.

#### Big Data

Data fragmentation, Map-Reduce method. Spark language, Databricks interface.

#### **Database**

Relational, SQL, XML, XQuery languages.

#### Web

JavaScript, CSS, HTML, PHP languages.

Other: Network basis, Basic medical knowledge.



Nutrition, Fitness, Weightlifting, Personal development, Learning, Self-taught