

☎ +33 6 59 29 14 50  
✉ arthur.bernard.92@gmail.com  
in /in/arthur-bernard-789955152  
🌐 ArthurBernard

# Arthur Bernard

Data Scientist in Quantitative Finance

## Key skills

- Proficiency in **statistics & econometrics softwares**: R (Advanced), Octave/Matlab (Advanced), SAS (Beginner), STATA (Beginner).
- Operating systems: Windows and **Unix**.
- Languages: French (**native speaker**), English (**professional skill**).

## Programming

- Highly advanced: **Python** (expertise in NumPy, Pandas, Cython, PyTorch, Keras, Sickit-Learn, Asyncio, Multiprocess/thread, etc).
- Advanced: **Shell**, VBA, LaTeX.
- In progress: **C++**.

## MOOC's

- Learn to program with **Python**, on OpenClassRooms.
- **Machine Learning**, by Andrew Ng, on Coursera.
- **Deep Learning**, by Andrew Ng, on Coursera.
- And other diverse courses (**Linux**, **C++**, etc.).

## Interests

- Artificial intelligence.
- Crypto-currencies/Blockchains.

## Experiences

- Jan. 2019 – **Quant Researcher** at **Napoleon Group**, Paris  
Present R&D of trading strategies, **multivariate prediction** with neural networks, **execution order algorithms**, development of **backtesting** and **financial analysis** tools, and webscraping data.
- Jun. 2018 – **Intern in Quantitative Finance** at **Napoleon Group**, Paris  
Dec. 2018 Research of quantitative strategies and **portfolio allocation** algorithms. **Data-science competition** elaborated for the Collège de France.
- Sept. 2013 – **Director** at **Mutuelle des Etudiants de Provence**  
May 2018 Approval of budgets, financial investments, internal policy, etc.

## Personal projects

- 2018 – 2019 **Machine/deep learning tools adapted to finance**  
Development of a python and cython package to create **neural networks**, **backtest strategies**, analysis with **econometric models** and **financial indicators**, etc. Published on PyPI as *fyfinance*.
- 2017 – 2018 **Webscraping package**  
Development of a python package to **download data** and **update database** from some crypto-currency's exchanges. Published on PyPI as *dccdd*.
- 2016 – 2019 **Trading bot algorithms on crypto-currencies**  
Development and maintenance of trading bots with python and bash scripts. Starting in 2016 with **arbitrage strategy**, and more recently create **strategies with neural network**. A part is available on my GitHub in the repository *Strategy\_Manager*.

## Education

- 2017 – 2018 Master's Degree in **Econometrics of Banking and Financial markets** at **Aix-Marseille School of Economics**, Marseille  
**Courses**: Stochastic finance, financial econometrics, financial engineering, econometrics of exchange rates, neural network, etc.  
**Projects**: Intraday analysis of BTCUSD versus EURUSD, etc.  
**Master thesis**: Analysis of dynamics of Bitcoin.
- 2013 – 2016 Bachelor's degree in **Economics and Management** at **Aix-Marseille Université**, Marseille  
**Specialization**: Finance.  
**Courses**: Time series econometrics, financial markets, statistics, optimization, informatic (SQL and VBA), etc.
- 2012 A-Level in **Science** at **High-School Marie Madeleine Fourcade**, Gardanne

## Miscellaneous

- 2019 **Data-science competition** at **ENS Challenge Data**  
7<sup>th</sup> out of more than 70 candidates in the temporary ranking, about prediction of daily stock movements on the US market, proposed by Capital Fund Management.
- 2014 – 2016 **Founder and general secretary of student association**  
Organisation and management of team projects.
- Present **Hobbies**  
Cooking, travelling (Norway, Scotland, Eastern countries, etc.), swimming (competition) and theater.