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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 – Present **Research in Quantitative Finance** at *Napoleon Group*, Paris
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 – Dec. 2018 **Intern in Quantitative Finance** at *Napoleon Group*, Paris
Research of quantitative strategies and **portfolio allocation** algorithms. **Data-science competition** elaborated for the Collège de France.

Sept. 2013 – May 2018 **Administrator (volunteer)** at *Mutuelle des Etudiants de Provence*
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 **econmetric models** and **financial indicators**, etc. Published on PyPI as *fynance*.

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 *dccd*.

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^{th} 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.