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ArthurBernard

Arthur Bernard

Data Scientist and Python Developer

Key skills

- Proficiency in **statistics** & **econometrics softwares**: R (Advanced), Octave/Matlab (Advanced), SAS (Beginner), STATA (Beginner).
- Operating systems: **Unix** and **Windows**.
- Languages: French (**native speaker**), English (**professional level**).
- Databases: Basic knowledge of **SQL**, **MDX** and **Hadoop**.

Programming

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

MOOCs

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

Interests

- Artificial intelligence.
- Programming.
- Crypto-currencies/Blockchains.
- Various Open Source projects.

Experiences

Mar. 2020 – Sep. 2021 **Data Scientist Consultant** *at **Coperneec***, Paris
For **Natixis** in Risk Management Department in the Market Stress Test team: automation of recurrent tasks, R&D on reverse stress test methodology, **fast pricing of products**, python package to manage data across different internal data sources (**SQL**, **MDX**, **Hadoop**), etc.

Jan. 2019 – Oct. 2019 **Quant Researcher** *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 ENS.

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 *fynance*.

2017 – 2018 **Webscraping package**
Development of a Python package to **download data** and **update database** from some crypto-currency exchanges. Published on PyPI as *dccd*.

2016 – 2020 **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**. Partly available on my GitHub in the repository *Trading_Bot*.

Education

2017 – 2018 Master's Degree **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 **Economics and Management** *at **Aix-Marseille University***, Marseille
Specialization: Finance.
Courses: Time series econometrics, financial markets, statistics, optimization, informatics (SQL and VBA), etc.

2012 A-Level **Science** *at **High-School M. M. Fourcade***, Gardanne

Miscellaneous

2019 **Data-science competition** *at **ENS Challenge Data***
6^{th} place out of more than 100 competitors, 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.