Sharing Data Science Algorithms in Finance
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Enhance returns
Smart beta strategies target specific investment outcomes by using factor-weighted approaches.

Reduce risk
Smart beta adopts passive implementation strategies transparent, quantifiable and systematic, eliminating any potential irrational behavioural factors that may arise from active management.

Cost savings
Rules-based and systematic approach to select its constituents leads to lower expense ratios.

1 tn USD represents about 1% of the total global AUM under management of the 500 biggest asset managers.

Source: Morningstar, Aberdeen Standard Investments
The 5 biggest hedge funds are quantitative Hedge Funds:
1- Bridgewater (Quantitative macro)
2- AQR (Quantitative diversified).
3- Man (mostly quantitative FoF)
4- Renaissance Technologies (Arbitrage quantitative).
5- Two Sigma (Multi-strategy quantitative).

QUANT IS THE NEW BLACK

QUANTIFICATION OF HEDGE FUNDS

The importance of quantitative fund in pure alpha funds

Quantitative Hedge Funds Assets under Management ($Bn)
Source: FT hedge Fund research 2016
~2.5x AuM
The transformation to a more quant investment world

- The Asset Management industry is adopting a more scientific approach
- It needs more financial data science
- It needs talent and technology
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“Armies of People are superior to experts”.
Vivek Wadlwa, fellow at Stanford Law School

Kaggle (owned by Google) claims to be the largest online community of data scientists (over 2 millions users). Current competition with Two Sigma which for 100’000 USD of price has nearly 3’000 teams working on its project. Other alternatives are CrowdAnalytix, Tunedit, InnoCentive, Topcoder, etc.

“Platforms are the offices/factories of the future”
Ernesto Spruyt, Mbbr.com
Community: Tap into bright minds

User Growth

Number of users registered on Alphien platform

- Scientists
- Professors
- PhDs
- Mathematicians
- Physicians
- Statisticians
- Professional quants
A community sharing ideas and having access to professional expertise can achieve better results. Alphien provide an environment where users can:

- Learn
- Share
- Ask
- Exchange

Offering different tools like:

- Live support from professionals
- Live chat
- Wiki platform
- Notebook
- Tutorials
- R functions
- R libraries
Quantitative Finance : The future of finance

The power of sharing : Community based sharing and vetting

Common Platform : Adoption of standards and vetting by experts

Community at work : Research, Learning and online competition
Global reach: 45 exchanges, 240+ futures contracts and options, more than 8’000 Equities and ETFs, and much more.

Platform: Fully integrated environment of industrial-grade technology available in a browser.

- Alphachat
- Data Viewer
- Notebooks
- Alphien Studio
- Wiki
- Qlib
Alphachat: Alphien’s main communication tool

Secure, encrypted, hosted on our own server
Data Xplorer: Browse all available data

Get an overview of data available

Browse
Select
Analyse
Use
AlphaView: Plot insightful graphs

Customized charts with technical indicators

Plot
Visualize
Compare
Analyse
Blog: Stay updated with the latest news

Quantocracy
Wednesday, April 24th 2019, 5:15 am

Quantocracy’s Daily Wrap for 04/23/2019
This is a summary of links featured on Quantocracy on Tuesday, 04/23/2019. To see our most recent links, visit the Quant Mashup. Read on readers! Replicating Famous Hedge Funds [Factor Research]
Diverse hedge fund strategies can be replicated via factor-mimicking portfolios

Alphienblog
Tuesday, April 23rd 2019, 10:04 am

Communiqué de Presse: Four Elements annonce un partenariat avec AI Singapore et NExT++ sur la plateforme d’Alphien
by Four Elements Capital
Four Elements announce a partnership with AI Singapore and NExT++ (NUS-Tsinghua-Southampton Centre) center commun

Alphienblog
Tuesday, April 23rd 2019, 9:13 am

Press release: Four Elements announces partnership with AI Singapore and NExT++
by Four Elements Capital
Four Elements announces partnership with AI Singapore and NUS-Tsinghua-Southampton Centre for Extreme Search (NExT++), a joint research centre in big unstructured data

Inspirations
Proprietary reports
Quant news
Guides
Accessible through your favourite browser
In Qlib Alphien...

- **Shares** all its source codes
- **Provides** documentation

...And allow users to

- **Manage** private collections of their functions
Alphien provides a professional environment and support to its community of users. We host Ambassadors on our platform to mentor the community.

- Ambassadors are “Super Users” on the platform.
- They support and animate a community in their field of expertise.
- Specialized in fields such as Artificial Intelligence, machine learning, option strategies, alternative risk premia, volatility strategies, technical analysis, frequency domain.
Quantitative Finance: The future of finance

The power of sharing: Community based sharing and vetting

Common Platform: Adoption of standards and vetting by experts

Community at work: Research, Learning and online competition
Users:
- Private environment for each user. All user keep IP rights of their research.

Alphien:
- Alphien does not have any rights to users’ private content and protects confidentiality.
- IP of strategies submitted by users for commercialisation is co-owned to protect the licensee.
Submit their problems to Alphien community by sponsoring competitions on the platform.

Alphien gathers a community of ambassadors and users, provides the relevant data and technology.

Sponsor pick the best solution that fulfills the most their needs.

The best way to get a community of bright minds to solve problems.
Solution: Competitions

For the sponsor ability to tap into our expert community to solve problems in finance

Submit your investment idea to our community who will work in clusters to bring you the best solution

Alphien gathers a dedicated community of ambassadors and users, provides the relevant data and technology for each to complete their research and backtesting.

Get full transparency on the vetting and paper trading process.

Get the best results delivered to you exclusively.

ALPHIEN is your trusted partner.
Datathon: Socially responsible investment

Alphien hosted a datathon for researchers to study the linkage between Environmental, Social and Governance ("ESG") behavior and equity performances.
We aim to build a neural network-based solution for predicting future contract prices of base metals.

This big data project is done on the Alphien platforms using dedicated GPU servers and dedicated database systems.

The project involves Natural Language Processing technology to augment the input of the networks as well as a vast amount of financial and non-financial data inputs.

This 2-year project is part of AISG's 100 Experiments initiative, co-sponsored by Four Elements Capital and hosted on Alphien and includes more than 10 researchers.
POWER AND LEARNING
BEHIND THE SCENES

A LEARNING JOURNEY TO BECOME A QUANT

Alphien provides a guided path to embrace the investment research philosophy of a quantitative finance pioneer.

THE FULL DATA OF AN INDUSTRY PARTICIPANT

Carefully curated data on prices of securities and contracts from all leading exchanges, encoded data, proprietary indicators. All the information academics can normally only dream of.

BLEEDING EDGE PROCESSING CLUSTER

Our joint platform features a proprietary distributed processing scheduler that transcends limitations of the R architecture.

INTEGRATED, AUDITABLE PERFORMANCE ANALYTICS

Because of our partner’s regulatory requirements, we have a fully auditable process so investors have confidence in reproducibility of results.
Alphien is open and free to academia and research projects, check out our website and sign up to gain access for free.

Alphien is also actively recruiting! For all available roles or drop us your CV: https://www.alphien.com/careers
Trusted By The Best
We raise a large community of quants among the best.