

Data Use Cases

Systematic Hedge Funds

H1 2020

Improve the predictability & efficiency of alpha generation through our scalable managed data & analytics products



BMLL dramatically increases the ROI of your data and analytics.

Our data and analytics will make your quants more effective and help them deliver predictive alpha faster and at a lower price point than before. By enhancing your workflows with our suite of predictive data and analytics products, your quants will unlock patterns in market behaviour, enhance signal generation & optimise algorithm performance, all at a fraction of the cost of building the capabilities in-house.

Alternative pricing data and analytics

- Use BMLL's statistically robust alternative datasets derived from level 2 & level 3 order book data
- Take these features from API or FTP and use them to outperform the market

Access to new predictive features

- Create new predictive features from the full depth of the order book and feed them directly into your production systems
- Our easy to use tooling will enhance your quest for alpha signals from the most granular level 3 data

Accelerated signal generation

- Improve your research output by 95% through BMLL's cloud native technology vs traditional on-premise stack
- Run full market analyses in minutes not hours

Harmonised cross-venue L3 data sets

- Optimise algorithmic performance & order routing across multiple venues with BMLL's unique harmonised L3 data format
- Effortlessly query and leverage the power of full order book across multiple venues

Data & research cost optimisation

- Reduce the cost of running a data intensive research function by outsourcing the data engineering, processing and storage to us
- Free up valuable quant resource from data engineering tasks so they can focus on alpha generation

Cost effective new market entry

- Fast track your alpha in new markets with our data & analytics service
- Get access to system that delivers granular market data & analytics without the cost or time taken to build the capabilities in-house

Examples in following slides



Deploying BMLL pre-calculated metrics into a predictive models results in >1.8 Sharpe ratio and 54% outperformance vs. FTSE100 benchmark returns

BMLL built and trained a model to predict next day price returns using our alternative pricing data, which is derived from the level 2 & 3 order book. The model was trained on 3 years of FTSE100 data and on out of sample testing outperformed the benchmark by 54%.

Model metrics	Data level
Auction price dislocation	L1
Average volume imbalance	L2
Average order resting times	L3
Intraday volatility	L1
Liquidity around BBO	L2



Alternative pricing data and analytics

Uncovering hidden predictive signals in full order book data



Harmonised cross-venue L3 data sets



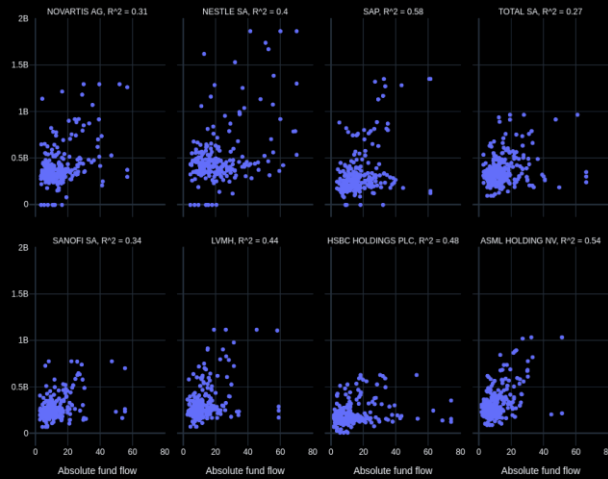
Uncover true cross-market depth | Leverage the full depth order book to analyse the true market liquidity

Through BMLL's products, you can access the full depth order book across multiple venues and use it to uncover true liquidity, detect iceberg orders and track order progression throughout the book. From this, you can measure the real impact orders have on the order book and feed this into your execution and transaction cost analysis.

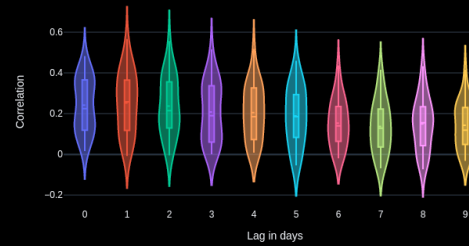
BMLL's products allow you to analyze the complete order book and model the impact of new algorithms across multiple venues.



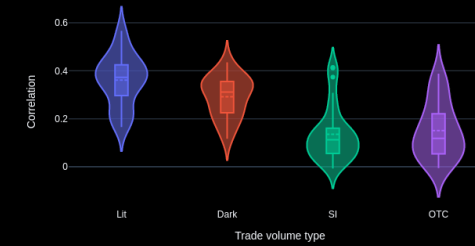
Access to new predictive features



Correlation decay by number of days



Different vol type correlation



Predict the alpha | Ingest pricing analytics with proven predictive power, delivering alpha directly to production systems

BMLL has a library of predictive alternative analytics derived from the full depth order book for ingestion directly into production systems. Working with a large systematic US hedge fund, we calculated 50 metrics from L2 & L3 data for daily SFTP delivery for each exchange they trade. Another alternative data set is focused on overlaying anonymized flow activity with the full depth order book, which has proven to be a statistically relevant predictor for future volume and price movements.

Working with BMLL will provide cost-effective access to these predictive analytics and alternative data sets that will drive alpha and distinguish you from your peers.



Accelerated alpha generation

Accelerating signal generation from 16hrs to 45 mins

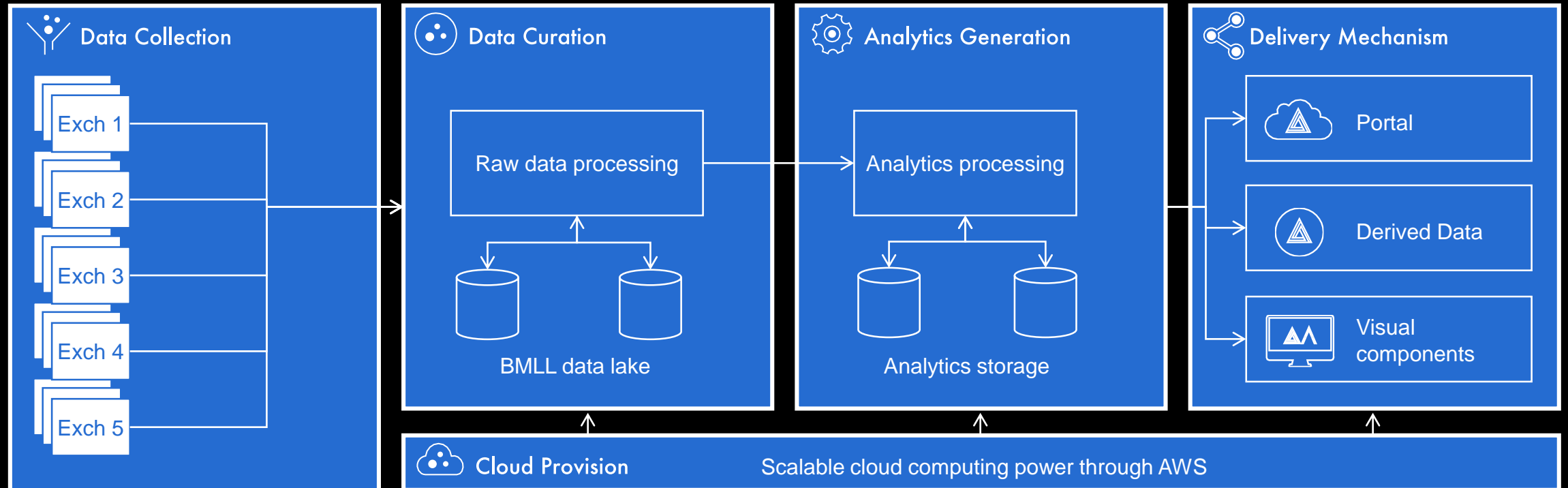
BMLL worked with the quantitative research division of a global investment bank looking at deriving a trading signal from 4 years of S&P500 data on the level 3 orderbook for a single metric. Running this computation serially took the bank 16 hours on an in-house on-premise stack. BMLL ran that analysis using a 20 node cluster (1280 virtual CPUs) in 45 minutes, including 10 minutes to generate the cluster.

With this enhanced workflow the researcher was able to iterate on their model 45x more than on an on-premise stack, thus improving output efficiency by >95%

Get immediate access to predictive data & analytics without the cost & time of building capabilities in-house



For new market entry, BMLL offers a unique, cost effective managed data and analytics service, allowing you to focus on generating alpha



We take direct source feeds from all our data vendors, and don't use ensuring data purity, accuracy & reliability

We harmonise the raw data into a single proprietary data format enabling scalable analytics

We harness the full power of AWS and latest ML tools to scale & automate our analytics generation pipelines

Our core products are powered by the full platform, delivering data & analytics capabilities exactly how and where are clients need them

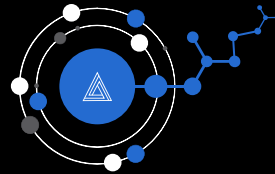
Ultimate choice | We offer 3 delivery mechanisms for our data & analytics tailored to your needs



BMLL Data Lab

Scalable python research sandbox

- The weapon of choice for sophisticated quants & researchers seeking alpha and actionable insight through direct access to the BMLL Platform & Data Lake
- Shorten your time to insight with our scalable platform, reducing time spent waiting for analysis to run
- Scale your research deploying clusters of nodes and schedule your output to run at will
- Delivered via fully customizable Jupyter lab python environment



BMLL Data Feed

API & FTP delivery of the data

- The power of the LAB in a derived data feed. Data & analytics fed directly from our Platform to your systems delivering you insights you trust
- Consume the data and analytics that informs better decisions delivered directly to production systems
- Focus on the decision making not the feature engineering
- Available via API and SFTP



BMLL Data Viz

Visual components for white-labelling

- Data & analytics with a visual punch. Showcase actionable insight and analytics to your clients, in your systems, powered by our Platform and Data Lake
- Deploy white-labelled visuals that showcase your capabilities to your clients and management
- Delivered either as built-in widgets and components into existing workflows or as standalone dashboards



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Next Steps | Journey to BMLL's data and analytics



Initial scoping discussions (1-2 weeks)

Understanding your needs

- Use case suitability assessment
- Find the product that best helps you

Initial technical requirements

- Research and data on boarding processes
- Data delivery preferences discovery

Detailed documentation

- Access to all required documentation

Initial trial period (4 weeks)

Free access to most relevant product

- Trial the products you want, and see how they can fit into your workflow

Ongoing support from BMLL technical team

- Support from our sales and data science team

Proof of Concept (1-3 months)

Full PoC onboarding of relevant product

- Technical delivery mechanisms implemented
- Cloud usage allowances and frequencies tailored

Dedicated technical support

- Support from our sales and data science team

Extension of product usage and users as required

- Implement workflows and test production output to ensure alignment in operational outcomes

Ongoing contract (12-18 months)

Full onboarding onto relevant product

- Expanded data and analytics access based on needs technical delivery mechanisms
- Cloud usage allowances aligned with enterprise production requirements

Dedicated technical support

- Our world class support and data science team will be there every step of the way making sure you succeed

Continuously monitor and evaluate business drivers and outcomes

- Ensuring customer success in any implementation or enterprise agreement is of the utmost importance to us. When you succeed, we succeed and we strive grow together with our clients

Get in touch to find out more



To find out more about how our data and analytics solutions can help you please get in touch with us at info@bmlitech.com



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