



RESEARCH SYMPOSIUM

THE BIG DATA & MACHINE LEARNING REVOLUTION

APRIL 24TH, 2018**9:00 AM** Registration & Coffee**9:30 AM** Welcoming Remarks

Armando Gonzalez, CEO, RavenPack

9:40 AM Quant Trading 101

Nitish Maini, General Manager, Virtual Research Center, Vice President, Portfolio Management, WorldQuant LLC

Nitish will focus on the similarities and differences between quantitative and discretionary investing with an emphasis on the importance of data. He will also host a demonstration of quantitative alpha using a web based simulator.

10:10 AM News Sentiment Everywhere!

Peter Hafez, Chief Data Scientist, RavenPack

In order to maintain an edge in the marketplace, asset managers are to a larger extent turning to unstructured content for alpha creation, using NLP and text analysis techniques. In addition, more managers are expanding their mandate, trading global portfolios, to ensure scalable strategies. As part of his presentation, Peter will showcase how news sentiment is valuable across global markets allowing managers to achieve their goal of increased scalability.

10:30 AM Straight talk about AI and Big Data: What is real? What is marketing hype?

Manoj Saxena, Chairman, CognitiveScale

Artificial Intelligence (AI) is rapidly moving from a mesmerizing technology to a powerful teammate and a foundation for consumer and business decision making. However, AI is a young field full of amazing potential. It's mystery and lack of understanding is also allowing for hype to grow unchecked. Unrealistic claims of an "AI singularity" and portrayals of an "AI apocalypse" are creating a hype machine that is unparalleled in recent history. The reality is somewhere in between these two extreme scenarios. This session will focus on some of the good practices around practical and high value applications of data and AI across healthcare, insurance, financial services, and digital commerce.

10:50 AM News in Diffusion Index Modelling

Asger Lunde, Director, Copenhagen Economics and Professor of Economics, Aarhus University

Asger will cover forecasting of Chinese macroeconomic time series using a large number of prediction variables. He investigates what is the extent of improvement of forecasts when news sentiment indexes are included among the predictors. The results suggest that forecasts obtained with this method outperform univariate autoregressions & in shorter prediction horizon news indexes improve the forecasts.

11:10 AM "Mapping" the financial market context, thanks to alternatives data & machine intelligence

Dimitri Huwyler, Head of Quantitative Strategy & Aleksandar Prarov, Quantitative Researcher, Next Gate Capital

Successful market timing is paramount for investors. This presentation will showcase a practical example of enhancement of a trend following strategy. Exciting new machine learning techniques and alternative dataset will be highlighted as well as using classic variables to build economic climate and global sentiment indicators.

11:30 AM Panel: The State of Machine Intelligence in Capital Markets

The financial sector is making a massive shift towards big data and machine learning technologies. Panelists will share their experience in using data science and domain expertise in understanding data context. They will address how machine learning can be useful in creating new alpha signals, as well as in the data generation/preparation process, in portfolio construction or risk management.

- Roland Fejfar, Morgan Stanley Fintech (Moderator)
- Mark Salmon, Cambridge University
- Andrej Rusakov, Data Capital Management
- John Morgan Slade, CloudQuant

12:30 PM Lunch**13:30 PM** Improving Systematic Strategies with Big Data and Machine Learning

Ada Lau, Quantitative Strategist, J.P. Morgan Securities (Asia Pacific)

Using two examples to demonstrate how big data and machine learning can add value to systematic strategies. The first strategy is on equity mean-reversion in Japan, where we find that news volume and news sentiment can be a useful overlay due to behavioral bias. The second example covers a Global value strategy based on Machine Learning algorithms. We show that Machine Learning models can outperform simple linear benchmarks, and news sentiment could further enhance the strategy.



13:50 PM Understanding and overcoming the weak points of Big Data and Machine Learning investing
Andrej Rusakov, Co-founding Partner, Data Capital Management

A practitioner's guide on the challenges of big data and machine learning investing and what to do about it. Demystifying the "magic box", sharing best practices and real-life examples of machine learning application to investing including NLP with RavenPack.

14:10 PM The Dangers of Machine Learning - And How to Overcome Them

Mark Salmon, Professor, Cambridge University; Director of Research, Centre for Advanced Financial Engineering and Advisor, Old Mutual Global Investors

This talk will review recent academic literature that attempts to ensure causation rather than correlation in the use of machine learning. Applications of ML in Genome/Cancer research have recognized this critical issue for some time and the case is obviously equally strong in Finance where money may be allocated on the basis of completely spurious data driven models. We will look at developments in "Post Model Selective Inference" and "Counter-factual Causal Prediction" with examples. If time permits we will also discuss recent statistical literature that questions the notion of "Big" data where the value of incremental data may tend to zero and how inference should be adapted.

14:30 PM Machine Learning and Alternative Data in Long/Short Equity Portfolios

Richard Bateson, Director, Bateson Asset Management

Combining alternative news and sentiment data with traditional signals can provide increased risk-adjusted returns in long/short equity portfolios. In this presentation we consider the application of Machine Learning techniques to capture these effects and explore non-linear approaches to alternative data.

14:50 PM Factor Returns and Sentiment

Louis Scott, Founder, Kiema Advisors and Consultant, Style Research

Do factors perform differently under news driven sentiment? Using Style Research and RavenPack sentiment data, Louis constructs regional factors and sentiment indices in the spirit of Hafez and Xie 2016. Results show strong differences under periods of high and low sentiment. The design of a quarterly moving average is distinct from most findings that reveal intra-day to a few days efficacy for sentiment. In particular, a strong difference in underlying distribution of factor returns is revealed and the Sortino ratios are distinct under sentiment regimes.

15:10 PM Break

LIGHTNING TALKS

Hear from industry experts on a series of 10 minute engaging and straight to the point presentations covering alternative data, market-moving events and data science.

15:40 PM Lessons from Facebook for the Alternative Data Industry

Michael Mayhew, Principal, Integrity Research

Facebook has recently come under significant scrutiny from customers, the press, and US Congress about how it allowed firms to siphon personal information from millions of user accounts. While this case is interesting in its own right, it highlights a number of lessons for vendors and users of alternative data about the risks of selling or using data that could provide personally identifiable information. This presentation discusses these risks and the steps firms should take to mitigate these risks.

15:50 PM Latest Innovations in Market-Moving Event Detection

Jason Cornez, Chief Technology Officer, RavenPack

RavenPack automatically detects thousands of different types of market moving events in unstructured text documents. An enriched event captures more context from the document to provide more color about what the event means. We take a quick look at how events are detected now and what innovations are happening to help enrich the events the system can detect moving forward.

16:00 PM The Evolution of Discretionary Investing in Data Science

Dan Furstenberg, Head of Data Strategy, Jefferies

Dan will discuss alternative data integration on the buy-side. He will review the data science landscape across investment managers and will highlight how fundamental investors are actively building these efforts and are approaching alternative data from a talent, infrastructure and resourcing perspective.

16:10 PM Panel: How to avoid the Alternative Data Pitfalls?

The panel will address what key areas financial institutions should have in mind when looking at alternative data to avoid wasting resources on alternative datasets doomed to fail. Although asset managers are aware of the importance of including data sources beyond market data and fundamentals to their models to keep an edge, they might not know where to start looking in the exponentially growing amount of alternative data sets claiming to add value. Panelists will share their experience, highlighting what pitfalls they should avoid, and discuss what are the required attributes of a potentially performing alternative dataset.

- Dan Furstenberg, Jefferies (Moderator)
- Peter Hafez, RavenPack
- Rich Brown, Schonfeld
- Michael Mayhew, Integrity Research
- Leigh Drogen, Estimote

17:00 PM Cocktail Reception

RavenPack is the leading big data analytics provider for financial services. The company's clients include the most successful hedge funds, banks, and asset managers in the world.

OUR SPEAKERS



Armando Gonzalez
CEO



Peter Hafez
Chief Data Scientist



Jason Cornez
Chief Technology Officer



Geoffroy Dallennes
Head of Marketing

EVENT ORGANIZERS



Malcolm Bain
Director of Sales & Marketing



Ashish Sharma
Director of Business Development



Richard O'Connor
Account Manager



Susan Perry-Livett
Marketing Executive

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