DATA ANALYTICS CAPACITIES AND PRACTICES

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VEGA
ECONOMICS

ABOUT VEGA ECONOMICS

WE DELIVER THE HIGHEST QUALITY WORK USING CUTTING-EDGE TECHNOLOGY WHILE PROVIDING THE PERSONAL ATTENTION THAT YOU CAN ONLY GET FROM A BOUTIQUE CONSULTING FIRM.

Vega Economics is an economic consulting firm specializing in expert testimony and data analysis. We deliver exceptional quantitative solutions for both litigation and consulting engagements. We have earned our reputation for excellence from our innovative problem-solving, comprehensive client support, and meticulously executed reports.

THE VEGA APPROACH TO BIG DATA

Many economic consulting firms advertise their data capacities and how they can manage big data. However, to facilitate the most impactful analyses with big data, one needs more than powerful computers and fancy data tools.

We are better at categorizing data

Not all databases are created equal. Without properly identifying the important relations across different data files and carefully categorizing them, the resulting database can quickly become a dump. In our approach to processing data, we ensure that, regardless of whether data comes in piecemeal or all at once, the end result is a database organized based on a solid understanding of the underlying data, the relations between the fields, and set up for efficient analysis.

We are better at identifying gaps in data

It can be overwhelming to work with terabytes of data, and it truly takes stamina to identify data gaps in working with big data. There are two main categories of data gaps.

1. <u>Gaps between what has been promised to be produced and what has actually been produced</u>: Although this sounds simple, when the data is structured in a non-intuitive manner, this can become a non-trivial task and require preliminary analysis to determine whether such gaps exists, and you will want a great team on your side.
2. <u>Gaps between what has been promised to be produced and what would be required for anticipated analyses</u>: We have assisted many cases by identifying this second type of gaps to ensure the production was sufficient for the expert analysis anticipated in subsequent phases of the litigation.

We are better at troubleshooting

In an ideal world, one would only need to press a button to run the code and verify the results of the opposing party's analysis after receiving production. This is rarely the case. We can go back to the opposing side with requests for clarity and help, but if the cause of the running error can be identified and easily fixed, we will be able to proceed and get a head start in performing the data analysis in the interest of the time. It takes experience and good reasoning to know where to look when troubleshooting, and our team is exceptional at finding bugs.

We are better at evaluating data and data results

Even when the code runs from beginning to end on the data without errors, one should not trust the final numbers without going through a series of sanity checks. We are committed to ensuring the data makes sense before running the analysis and the results are consistent with economic intuition. This gives our clients peace of mind that both the data used and the results of the analysis are complete and accurate.

VEGA'S BIG DATA CAPACITIES

Vega regularly works with large volumes of data. Our staff and in-house infrastructure have the capabilities to build, maintain, update, and most importantly, leverage extensive data to meet client needs. Our expertise enables us to conduct efficient and informative analytics. Our team is skilled at processing, normalizing, and enriching data. We also have experience maintaining datasets with billions of observations spanning many years.

EXAMPLE ENGAGEMENTS

BCBS Antitrust Cases

Vega was designated as the lead consulting firm for receiving and verifying data produced by a large group of insurance companies. We processed more than dozens of terabytes of data by using our state-of-the-art computing resources. Our team assisted counsel by bridging the gap between the data produced in discovery and the expert analysis, ensuring the data was sufficient for the expert analysis anticipated in subsequent phases of the litigation.

Spoofing Cases

Vega has been retained by both plaintiffs and defendants to investigate potential spoofing activities by analyzing terabytes of high-frequency trading transaction data. We examined potential spoofing trades both manually and algorithmically.

Credit Card Data

Vega provided consulting support in a putative class action in bankruptcy court asserting discharge-injunction claims related to charged-off, sold credit card debts. As part of the engagement, we processed terabytes of data from a credit bureau that contained detailed credit histories and account information.

Bond Price Rigging Cases

Vega provided consulting support to process and analyze enhanced, historical TRACE data from FINRA, which includes over 14,000 bonds issued by Fannie Mae and Freddie Mac and data for over 5.9 million total transactions. Vega assisted with development of case strategy and overall case management including providing market and technical analytics.

Medical Billing Dispute Matter

Vega was retained to review millions of claim records made available through discovery, identify data fields necessary to evaluate the disputes, and determine whether the produced data is sufficient to replicate opposing expert's analysis.

ANALYSES POWERED BY CUTTING-EDGE TECHNOLOGY

Vega is an industry leader in conducting analyses using powerful tools from statistics, data analysis, machine learning, and other methods of data science.

EXAMPLE DATA TOOLS

Text & Sentiment Analysis

Our team has experience analyzing and interpreting extracted text using sentiment analyses. We have built algorithms to classify over millions of pages of documents and use proprietary tools to identify, categorize, index, and compile relevant documents based on content. In several engagements, Vega has also employed modern sentiment analysis.

Data Visualization

We creates intuitive, aesthetic, and compelling visualizations to summary the most important information from data. Utilizing our programmatic dexterity, we make complex concepts accessible to all audiences. Our team is also able to streamline revisions and ensure consistency in visualizations by automating the generation process.

Artificial Intelligence (AI) & Machine Learning (ML)

Vega uses cutting edge AI and ML technology to guide data-driven analyses. By using complex state-of-the art data science methods, we are able to process and analyze large volumes of complex information while reducing subjectivity and error. Our approach allows us to automate complex tasks and customize analysis of large datasets.

Web Scraping and Data Collection

Vega researches and collects large amounts of publicly available data. Drawing on our experience and creativity, we perform focused searches to identify and gather relevant and informative data unique to each engagement. Our team uses proprietary tools to scrape and compile custom datasets that address the needs of every client.

Statistical Analysis & Sampling

Vega develops and implements empirical analyses to answer our client's economic and financial questions. We rely on flexible, robust, and defensible statistical techniques to address a wide range of issues including sampling, simulation, survival analysis, and other statistical techniques.

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