DELIVERING A STRATEGIC AND INNOVATIVE PLATFORM FOR A LEADING SINGAPORE BASED NEWS SEARCH AND ANALYSIS AGENCY

PREPARED BY

TECHVARIABLE

CLIENT PROFILE

The client is one of the biggest news search and analysis agency in Singapore. The company provides a very detailed and informative analysis of social media posts and news from other media sources like newspaper articles, audio and video files etc. for their clients.

The company also have worked with the Government of Singapore. Along with that, the company has worked with many organizations for the last 10 years.

"TechVariable's Machine Learning based solution allowed us to automate the entire process of collecting, processing and visualizing millions of posts on social media and other available media resources."

-CEO

KEY CHALLENGES

- The company already had an existing portal wherein *collecting and processing all posts is completely manual*, while being devoid of automation and other features.
- Manually collecting posts from various social media based on certain keywords is challenging and time-consuming. Also, *scaling is almost impossible*. Another problem is that manually processing all the posts from various sources is very complicated and prone to errors.
- The existing portal also doesn't support role management as far as client, staff and admin logins are concerned.
- Along with that, the client is also facing *issues in creating clean and informative visualizations* using their existing portal

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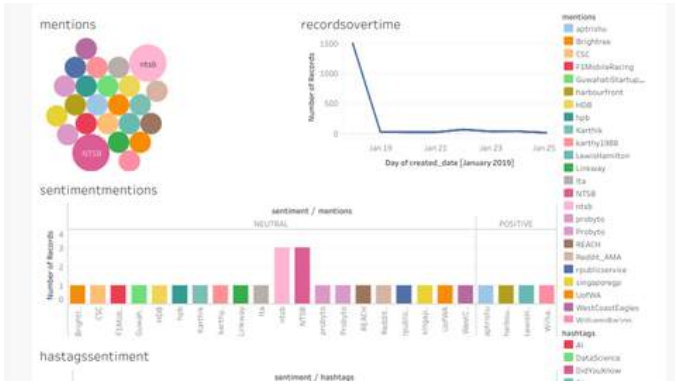
OUR SOLUTION

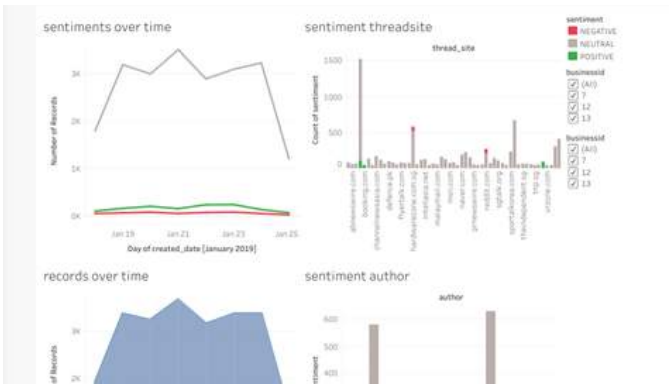
First, we built a system that automatically collects data from various social media based on certain keywords. We also provided a system for uploading data manually from any other source. These gets saved into AWS S3.
For processing all the data accurately and efficiently, we used some advanced Machine Learning algorithms. For this particular part, we have used several services like AWS Lambda, AWS Comprehend, Google Vision etc. One potentially *major issue that we faced while using AWS Lambda services is that it has many limitations on the number of requests it can handle at a time*. We solved this by building a batch system that sends a particular number of requests at a time.
As far as role management is concerned, we built a system where each user assigned to a particular role will have certain access level.
For easy and effective search capability within the portal, we used the Elasticsearch based search system with advanced filters and search capabilities.
For auto-visualization and reporting in a very clean and informative way for their clients, we took advantage of tools like Tableau and Kibana, the choice of which depends on the size of the demands in terms of different types of visualizations required.
All the modules were then combined into a single massive system along with a simple and easy-to-use front-end dashboard system using ReactJS, which is used to control the entire system.

OUTCOMES

- Collects data from various platforms
- Processes all the data collected from various platforms
- Provides neat and informative visualization automatically at a very high scale
- Provides a very advanced search mechanism
- Provides a very simple and easy-to-use dashboard.

The new system we developed, help the client to achieve goals beyond their expectation. Now with the new system, they can analyze millions of posts efficiently.





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