Tiger Analytics

Tiger Analytics empowered a large digital media company to gain $1.2M per quarter through an optimal ad inventory strategy

Tiger Analytics implemented Machine Learning (ML) models to estimate the win probability of real-time ad inventories. The solution took into account the various price points, leading to enormous savings on the marketing budget. It also caused a 116% lift in predicting impressions that could get more clicks, with a 54% increase in the win rate.

The Background

Our client is a specialized Digital Marketing agency using Machine Learning and Data Science to deliver real-world value for advertisers and marketers. Their unique advertising capabilities and industry-leading campaign performance were measured by real-world business outcomes that fueled rapid year-over-year growth. The client wanted to be empowered to decide which ad would show the highest win probability. So, they were looking for an AI and ML-based approach to take the process to the next level.

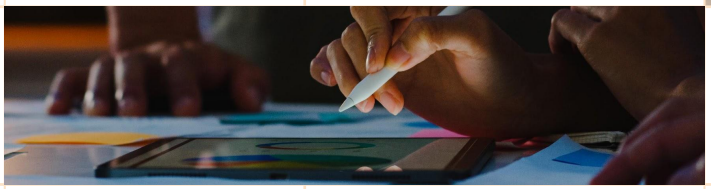
Key Challenges

\ **Dynamic digital ad landscape:** Digital ad behavior was extremely dynamic, with a large number of external players and volatile trends.

\ **Selection cannibalization risks:** The selection schemes were prone to strategy starvation and cannibalization.

\ **Ultra-fast bidding constraints:** The full ad-bidding process took < 500 milliseconds (clicks were rare events - typically 1 for every 3,000 impressions).

\ **Demand for massive analysis:** Millions of data points were expected to be analyzed by the ML model.

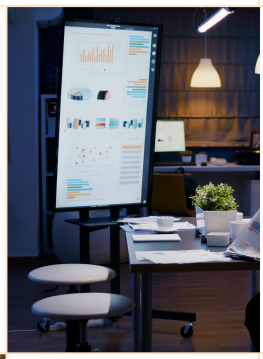


Our Solution

Tiger Analytics worked closely with the client to craft a best-fit AI and ML-based solution.

First, the team gathered all the raw data in a data warehouse with typical attributes around user profiles, ad impression attributes, publisher attributes, category restrictions, etc. Next, categorical data analysis and win encoding were performed to handle columns with high dimensionality. A Random Forest Model was also created to predict the win probability of each ad candidate.

Lastly, the team evaluated model performance on sub-samples based on simulation and real-world validation. The final solution accommodated constraints like category restrictions and new websites without real-time historical data.



Value Delivered

$1.2M per quarter through a **customized real-time bidding solution** was gained.

A 116% lift in **predicting impressions** that garner clicks was achieved.

The **top 20% of impressions** (from the model) captured 43% of clicks.

A **54% increase in win rate** through strategy optimization was accomplished while keeping the bid price per win as low as possible.

About Us

Tiger Analytics is a global leader in AI and analytics, helping Fortune 1000 companies solve their toughest challenges. We offer full-stack AI and analytics services & solutions to help businesses achieve real outcomes and value at scale. We are on a mission to push the boundaries of what AI and analytics can do to help enterprises navigate uncertainty and move forward decisively. Our purpose is to ***provide certainty to shape a better tomorrow.***

Being a recipient of multiple industry awards and recognitions, we have 4000+ technologists and consultants, working from multiple cities in 5 continents.
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