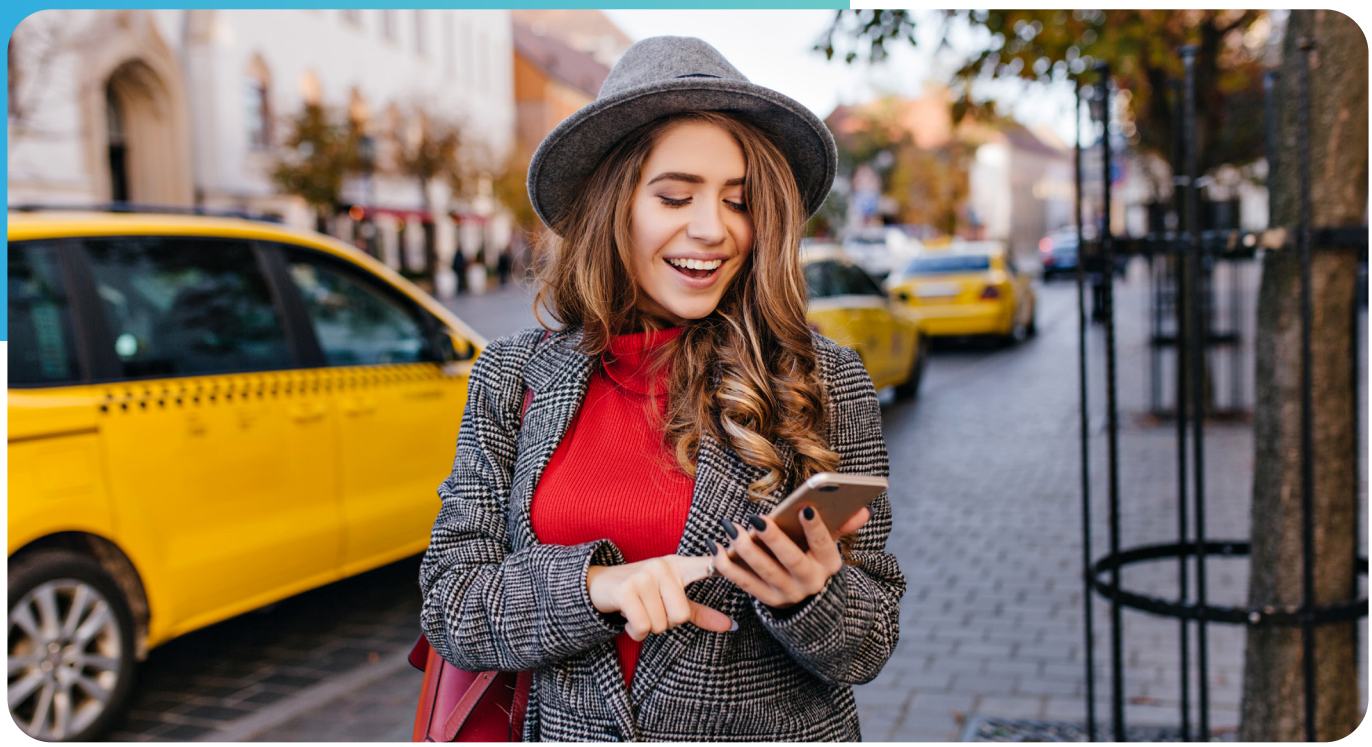
SUCCESS STORY



UTILIZING UPSELLING ML MODELS FOR AD MERCHANTS TO OPTIMIZE THE BUDGET AND INCREASE REVENUE

PROJECT OVERVIEW

The client wanted to predict the upselling trends leveraging peer behavior data of the individual merchants. In order to increase the spend budget of those merchants on the platform that would maintain a permissible return on ad spend (ROAS) which will in turn help our client achieve increased revenue.

SOLUTION DELIVERED

Advanced Analytics

CLIENT DOMAIN

Digital Native/ ISV

KEY HIGHLIGHTS

- **Enhanced Customer Lifetime Value:** With an expected 15% increase in the Lifetime Value of Merchants on the Ads platform, the business can achieve higher customer retention and loyalty.
- **Increased Revenue:** Implementing the ML model led to an additional revenue of USD 6 million. optimizing advertisement spending with an impressive ROAS of 7.5.

ABOUT CLIENT

The client is a global technology giant that operates through a mobile app. With a presence in over 900 metropolitan areas worldwide, the client has revolutionized the transportation industry, providing convenient and affordable alternatives to traditional taxis. The client is also actively expanding into other logistics areas.

BUSINESS REQUIREMENTS

The key business requirements for this project were:

- **Increase Ad Revenue:** To enhance ad revenue on the client's ads platform by predicting the upselling trends using the peer behavior data among the individual merchants.
- **Propose Enhanced Spend Budget:** To propose an enhanced spending budget that balanced maximizing ad revenue and maintaining a permissible return on ad spend (ROAS), resulting in increased profitability and success on their ads platform.

SOLUTION HIGHLIGHTS

The solution approach for increasing ad revenue on the client's ads platform involved the following key steps and highlights:

- **Data Lake Implementation:** A data lake based on Hadoop Distributed File System (HDFS) was created to store all merchant data ingested from multiple sources.
- **Focus on Local Merchant Segment:** The project focused on the local merchant segment, which accounted for 46% of the business. Apache Hive was used to query the data sets from the data lake. Python libraries were then utilized to process and prepare the input data for the Machine Learning (ML) model.
- **ML Model Development:** The ML model was employed to determine the optimum parameters, involving multiple iterations to achieve accuracy. A combination of k-means clustering, and polynomial regression was used. Similar merchants were clustered, and polynomial regression was utilized to identify the optimal parameters. Input parameters, accounting for factors such as merchant visibility, magnitude, location, and spend appetite on the platform, were used to predict gross booking values as the output parameter.
- **Exploratory Data Analysis and Visualization:** Python libraries were used for exploratory data analysis to gain insights into the data. Additionally, Google API was leveraged to present the final output.
- **Validation through Pilot Program:** To validate the predictions from the model, a pilot program spanning 2 months was conducted across 2 countries, involving a set of identified merchants. The predictions were accurate in 76% of cases, with deviations within +/- 7% of the predicted gross booking values.

BUSINESS IMPACT

- **Additional Revenue Generation:** The ML model generated an impressive additional revenue of USD 6 million. This substantial increase in revenue was achieved with a comparatively small total additional spending of USD 0.8 million, achieving an excellent Return on Ad Spend (ROAS) of 7.5.
- **Scalability and Expansion:** Following the successful pilot program, the model is now being scaled up for broader implementation across a wider range of merchants. This indicates the high potential for continued revenue growth and optimization.
- **Improved Lifetime Value of Merchants:** As the model's success is replicated on a larger scale, the lifetime Value of Merchants on the Ads Platform is projected to increase by at least 15%. This demonstrates the significant long-term impact on the client's revenue and profitability.

TECH STACK

ABOUT INDIUM

Indium Software is a fast-growing Digital Engineering company, focused on building modern solutions across Applications, Data, and Gaming for its clients. With deep expertise in next-gen offerings combining data and applications, Indium offers a wide range of services including Product Engineering, Low-Code development, Data Engineering, Ai/ML, Digital Assurance, and end-to-end Gaming services.

indium
Make Technology Work

USA	INDIA	UK	SINGAPORE
Cupertino | Princeton Toll-free: +1-888-207-5969	Chennai | Bengaluru | Mumbai | Hyderabad Toll-free: 1800-123-1191	London Ph: +44 1420 300014	Singapore Ph: +65 6812 7888

www.indiumsoftware.com

For Sales Inquiries
sales@indiumsoftware.com

For General Inquiries
info@indiumsoftware.com