



# Promotion Analytics on Azure

[www.sigmoid.com](http://www.sigmoid.com)





# About Sigmoid

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# Sigmoid is an emerging leader in data engineering and AI solutions.



**750+**  
Employees



Work with **30+**  
Fortune 500 firms



**>97%**  
CSAT score



**200+**  
ML models operationalized



**5000+**  
Data pipelines built

Backed by

**SEQUOIA**

## Awards and Recognition



Technology **Fast 500**  
2023 NORTH AMERICA  
Deloitte.



Provider Lens 2023 Quadrant

**Analytics Services**  
Rising Star, U.S. ★

Report releasing Jan 2024



America's  
Fastest-Growing  
Private Companies



Open Source data  
solution provider  
of the year



**FORRESTER**  
Now Tech:  
AI Consultancies,  
Q1, 2021 Report

Major Contender in

**EVEREST GROUP**

Analytics and AI Services Specialists  
PEAK Matrix (2022)

## Offices



New York



San Francisco



Dallas



Lima



Bangalore



Amsterdam

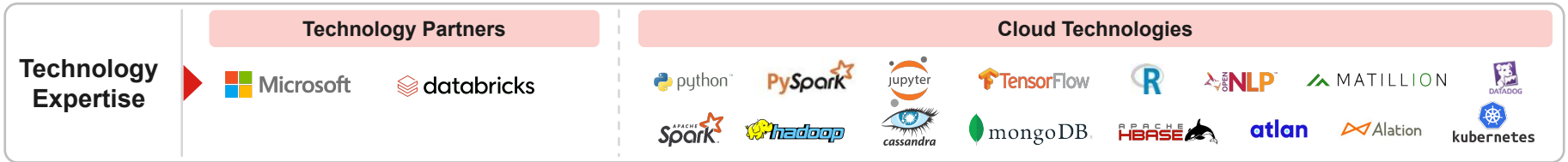
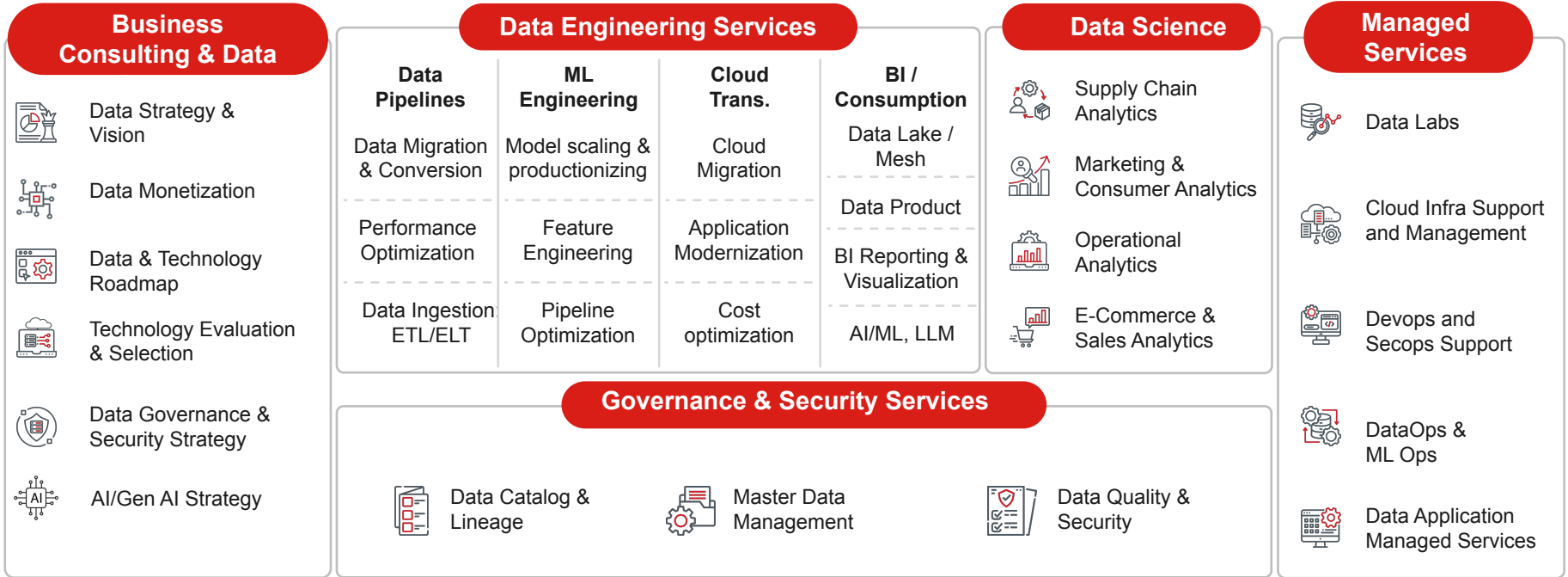


London



Sao Paulo

# Enabling Business Transformation with Full-Service Capability Suite



# Sigmoid Capabilities - Experience in implementing data solutions in Azure

Sigmoid has worked with more than Five large customers to design, build and deploy solutions in Azure

## Data Processing & Transformation:

- **Azure Databricks:** Collaborative Apache Spark-based analytics platform to be used for big data processing and machine learning.
- **Azure HDInsight:** Managed cloud service for processing big data using popular open-source frameworks like Hadoop and Spark.

## Data Storage & Management:

- **Azure Data Lake Storage:** Scalable and secure data lake for storing large amounts of structured and unstructured data would be considered.
- **Azure SQL Database:** Managed relational database service for structured data storage.

## Data Ingestion & Integration:

- **Azure Data Factory:** Creating data pipelines to move and transform data from various sources.
- **Azure Event Hubs:** Real-time data ingestion from applications, devices, or any data streams would be done.

## Data Analytics & Visualization:

- **Azure Synapse Analytics:** Analytics service which will be used for analyzing large amounts of data using either serverless or provisioned resources.
- **Power BI:** Business intelligence tool to be used for creating interactive visualizations and reports.

## Machine Learning & AI:

- **Azure Machine Learning:** End-to-end platform for building, training, and deploying machine learning models.
- **Cognitive Services:** Pre-built AI services for vision, speech, language, and decision-making.

## Security & Compliance:

- **Azure Active Directory:** Identity and access management service.
- **Azure Policy & Blueprints:** Tools for implementing governance and compliance across Azure resources.



Sigmoid's implementation of solutions in Azure involves leveraging a combination of services and tools tailored to specific business needs. Sigmoid would collaborate between data engineers, data scientists, business analysts, and other stakeholders as it is essential to align the implementation with business goals and ensure success.



# Promotion Analytics Capability Suite

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# 4 Pillars - Revenue Growth Management



Revenue Management (RGM) is the application of disciplined analytics that predict consumer behavior at the micro market levels and optimize product availability and price to maximize revenue growth.

## RGM Visibility & Business Analytics

### Assortment Intelligence

*Maintain right mix of products across channels, retailers & geography to optimize across profitability & service levels.*

### Product Pricing

*Identify the optimal pricing model for the product portfolio based on elasticities of price, distribution & weights.*

### Promotion Management

*Develop a balance in promotion activities for the portfolio considering promo sensitivity, its impact on the portfolio & the supply chain.*

### Trade Term Management

*Design process to marry right retailers with right products while identifying apt incentives.*

## Data Layer



Data Lake



Ingestion



Consolidation



Harmonisation



Enrichment



Consumption

## Process Revaluation

# Profiling patterns of high performance by Promotion Pattern Identification

Client: Leading CPG Giant Industry : CPG



## Business Problem Statement

Absence of a mechanism to predict the performance of promotions .



## Analytics Solution

Promotion Pattern Identification [PPI] uses historical promotion data to identify patterns of high-performance.

- Historical promotion, P&L info, Nielsen & external data for holidays were used to build a database having attributes, cause & effect info.
- Attributes around promotion intensity, depth, offer mechanics, duration & timings were developed apart from retailer-specific effects, product attributes, etc.
- A recommendation engine was developed using Xgboost to identify complex interactions and quantify promo volume uplift.

The engine provides info on best alternative, expected uplift & effectiveness category to users in a simulation environment



## Expected Business Value

- **10 %** uptick in promo spend effectiveness.
- **20 %** uptick in Sales lift over traditional promotions



# Driving marketing effectiveness through **Personalized promotion**

**Client:** Leading Quick Service Restaurant **Industry :** Quick Service Restaurant



## Business Problem Statement

Subpar Customer Lifetime Value partially & inadequate Customer Engagement



## Analytics Solution

Build personalized marketing ecosystem to have better customer engagement

### Clustering

- *Based on purchasing behaviour created 8 diverse segments, to enable launch of machine learning based offers testing ecosystem.*

### Sampling

- *Based on purchasing behaviour created 8 segments split segments into Bandit test audience vs EDLP audience vs NAT audience vs test control (stratified sampling).*

### Offer matching

- *Built & ran multi armed bandit to produce proportions within MAB test audience, to find affinities of different offers to different customers.*

### Pipeline Development

- *Deployed the MAB model and built data pipeline to upload 20 M customer/offers associations to CRM*



## Expected Business Value

- **2 %** uplift in average conversion rate
- **2-7%** (peak 9%) uplift in Sales
- *Optimized offers for 9 customer segments, sending **13 MN** emails everyday i.e. equivalent of running more than **13K** A/B tests per week.*

# Engagement Models

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# Sigmoid's Engagement Models

## Project Based



- Starts with consulting/scoping (2-3 weeks)
- Delivery Program Management
- Interim review
- Success criteria met and IP handover
- Option to continue with product support
- Fixed bid contract
- 3-5 months duration given complexity of problem

### Benefits

- Cost effective
- KPI/SLA/Outcome driven
- Suitable for Fixed scope of work
- Less overheads

## Staff Augmentation



- Understanding of skill requirements
- Profile match and rate card
- Onboarding and monthly billing
- Focused training based on client tech stack
- Project Management support
- 10% backup resources unbilled and trained

### Benefits

- Scalability
- Flexibility in resourcing
- Ability to change/redefine scope

## Hybrid-Flexi Model/Data Labs/CoE



- Mix of project and staff augmentation engagements
- Requirement gathering
- Requirement classification - as project or staff augmentation
- Joint delivery plan
- Secure resources internally from Sigmoid and bill monthly
- Dedicated PM, Engineering Managers
- Dedicated Management Consultant(s)
- Dedicated Team Leads and Product Owners

### Benefits

- Cost effectiveness by focus on output
- Ability to change/redefine scope/Change requests
- Risk/Reward linked to KPI/SLA

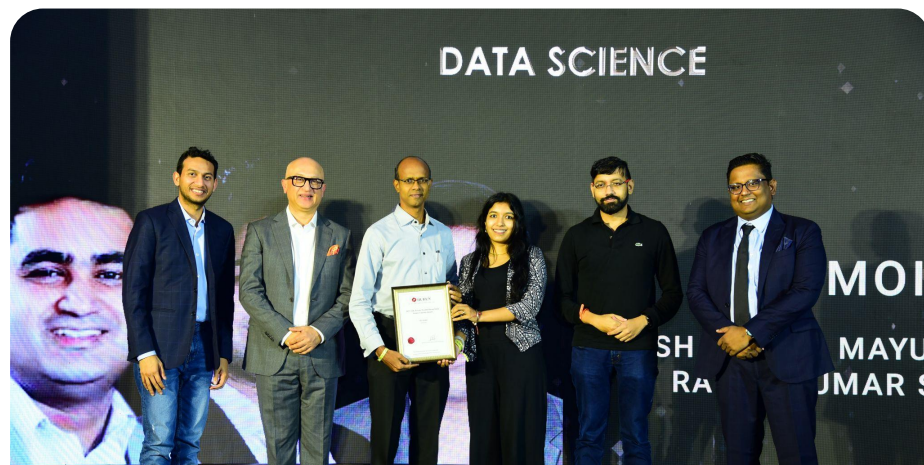
# Thank you



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Website: [www.sigmoid.com](http://www.sigmoid.com)



**'India Future Unicorn Award'**  
in Data Science category by Hurun India

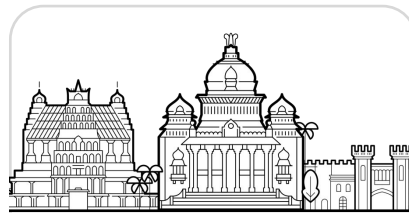
## Global presence:



**USA** (NY, SF, Dallas, Chicago)



**EU** (Amsterdam, London)



**India** (Bengaluru)



**LATAM** (Lima)