

AutoML en Power BI

Mauricio Gamboa



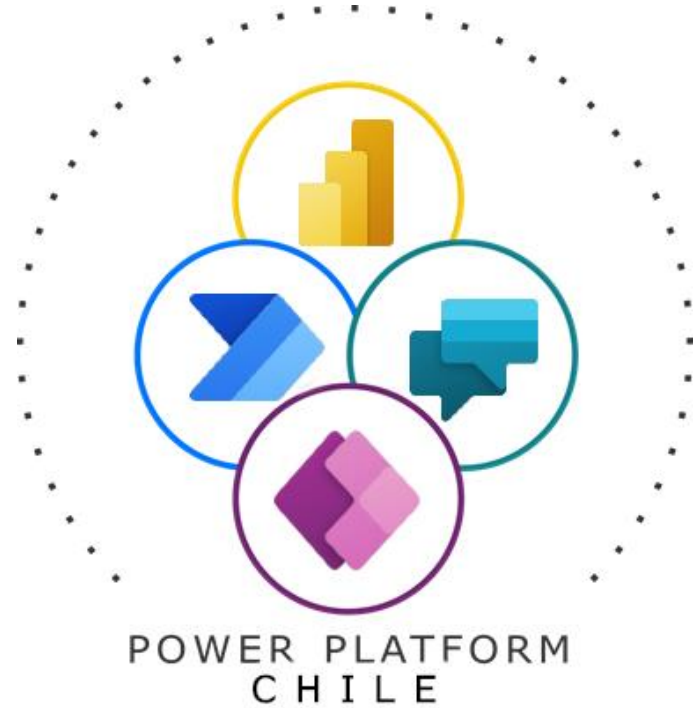
Power BI



Mauricio Gamboa



Consultor Data Analytics



Microsoft Power Platform



Power BI
Business
analytics



Power Apps
Application
development



Power Automate
Process
automation



Power Virtual
Agents
Intelligent virtual
agents



Data
connectors



AI Builder



Common
Data Service

AI in Power BI



Data Scientists

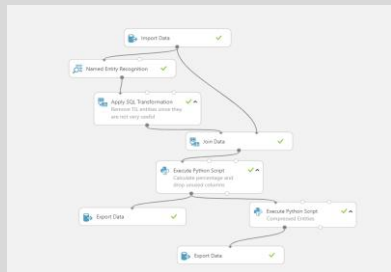


Analysts



End users

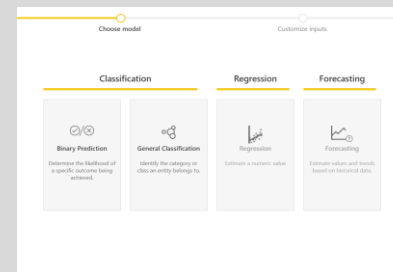
Extend with Azure ML



R Integration



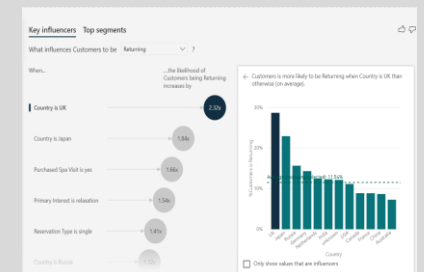
Create ML models



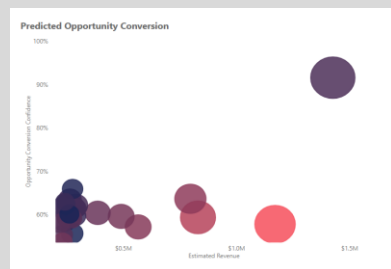
Sentiment Analysis

Sentiment Score	Title
0.75	Great room. Loved the pool and view.
1.00	disappointing
0.79	will be returning to Grand Kaiulua again!
0.94	Nice Condo, excellent location in Kona, HI
0.03	Outdated, dirty unit in good location.
0.06	Filthiest place I have ever stayed
0.94	condition of room--VERY DISAPPOINTING !!!
0.71	Nice hotel that is walking distance to everything
0.99	Reasonable beach condo - well located
0.88	Great Location for ocean sunset views
0.97	Nice hotel on the beach
0.78	best location in kailua kona.
0.98	SCAM! DO NOT STAY HERE!
0.80	Nice hotel close to the beach. Spacious livingroom
0.12	Avoid at all cost
0.92	Great location, ade, condo, building

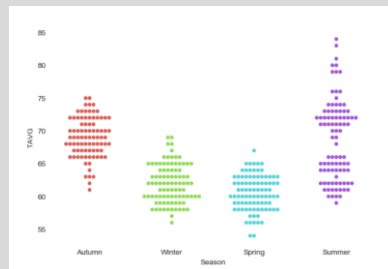
AI Visualizations



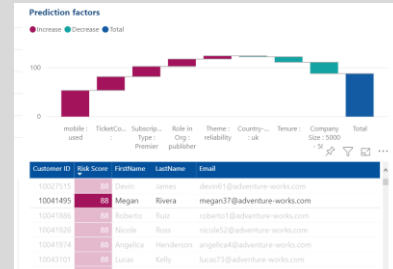
Integrate into reports



Python Integration



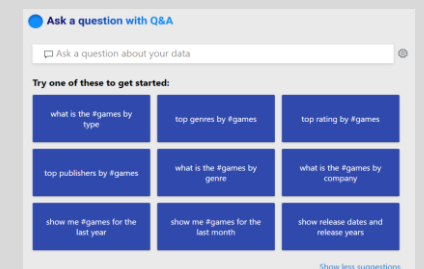
Explore predictions

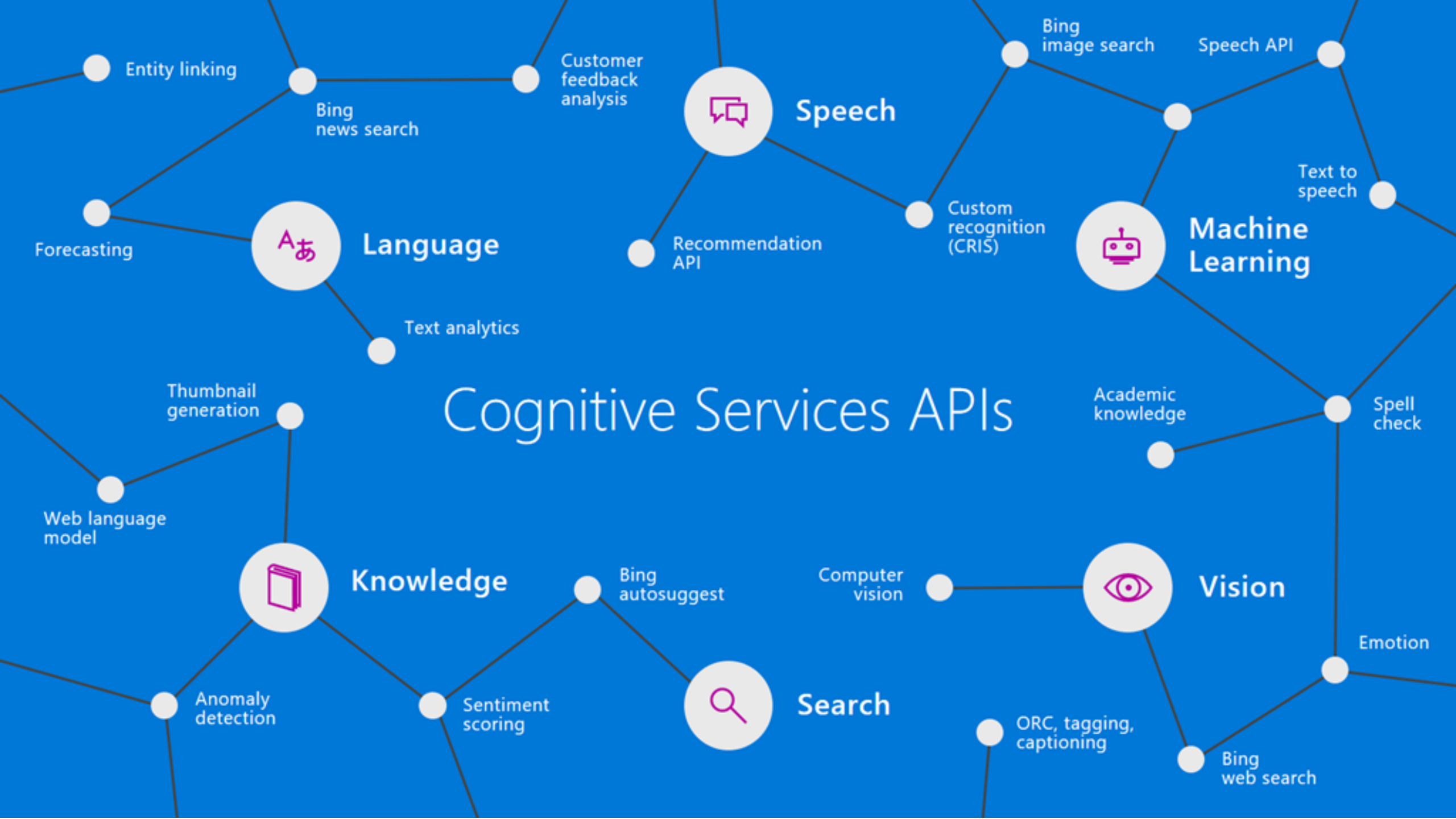


Key Phrase Extraction



Natural Language







Cognitive Services Text Analytics

- Detectar el Idioma
 - Reconoce más de 120 idiomas.
- Extraer frases claves
 - Evalúa texto no estructurado, y para cada campo de texto retorna una lista de frases claves.
- Análisis de Sentimiento
 - Utiliza un **Algoritmo de Clasificación** de Machine Learning para generar una puntuación de sentimiento entre 0 y 1.
 - Las puntuaciones más cercanas a 1 indican un sentimiento positivo, las puntuaciones más cercanas a 0 indican un sentimiento negativo.

[Ejemplo](#)

Cognitive Services

Vision

- La función de etiquetar imágenes devuelve etiquetas basadas en más de 2,000 objetos reconocibles, seres vivos, paisajes y acciones.
- Cuando las etiquetas son ambiguas o no son de conocimiento común, el resultado proporciona "pistas" para aclarar el significado de la etiqueta en el contexto de una configuración conocida.
- [Ejemplo](#)



Automated Machine Learning

1. Create and train your model

2. Improve it

3. Apply it

Select training data

Select your base data and related inputs to train your model.

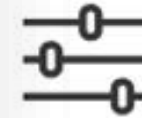
Choose a model type

We'll help you pick the best model to achieve your business goals.



Train your model

The model will train on your data and report on its performance.



Iterate and retrain

Evaluate, customize and retrain your model until it's optimized



Apply the model

Apply your model to future data for predictive insights.

- El aprendizaje automático de máquinas (AutoML) para Dataflows permite a los analistas entrenar, validar e invocar modelos de Machine Learning (ML) directamente en Power BI Service.
- El servicio extrae automáticamente las características más relevantes, selecciona un algoritmo apropiado, y ajusta y valida el modelo ML.
- Una vez que se entrena un modelo, Power BI genera automáticamente un informe de rendimiento que incluye los resultados de la validación

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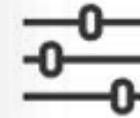
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1. Seleccionamos el campo a predecir
2. Seleccionamos el modelo a utilizar
 - Clasificación: Predicción binaria, Clasificación general
 - Regresión
3. Seleccionamos los datos a estudiar
4. Entrenar modelo



Purchase Intent Prediction model training report

This report summarizes the model performance and training details and enables you find an optimal threshold for defining your business outcome.

[Apply model](#)[Edit model](#)

MODEL PERFORMANCE

How the model was evaluated

The model predicted Revenue probabilities for a test set of 2466 records and compared the predicted outcomes (based on the selected threshold) to the historical outcomes.

Model performance

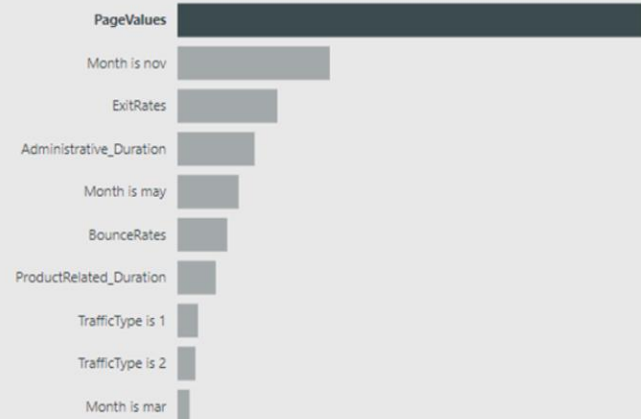
The Area under the curve (AUC) observed on the test set is :

93%

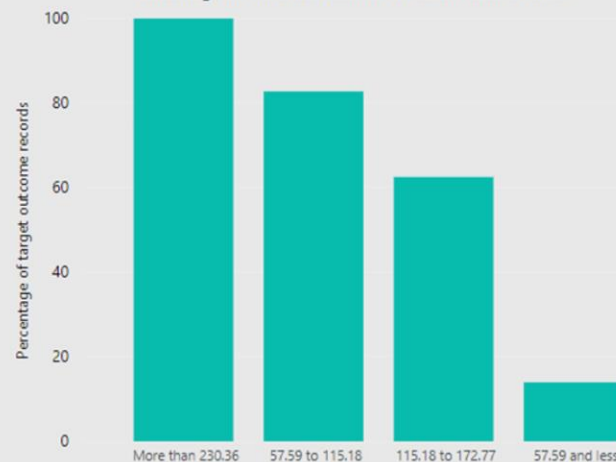
Different features have varying influence on the predicted outcome. Click below for details.

[See top predictors](#)

Top predictors by influence



Percentage of Purchase records for each feature value

[Model Performance](#)[Accuracy Report](#)[Training Details](#)[Get data](#)

Funciones de AI

Power BI	Azure
Diseñado para analistas de negocio o profesionales BI	Diseñado para data scientist/data engineer
Conocimientos requeridos: Power Query y lenguaje M, y Power BI Dataflows.	Conocimientos requeridos: Azure, lenguajes como C#, Java, Node.js, Python
Se puede utilizar solamente dentro de Power BI	Se aloja en Azure y puede ser consumido como servicio web por muchas aplicaciones
Requiere capacidad de Power BI Premium	Requiere una suscripción de Azure

To build a data culture, everyone in your organization needs to be empowered to work with data. At its core, BI is a collaborative process.





POWER PLATFORM
Chile



Pablo Moreno
Microsoft MVP



Hector Prada
Consultor TI



Bruno Bentancor
Project Analyst

Miércoles 21 de Octubre

18:00 

meetup



[mgamboaf1](#)



[Power Platform Chile](#)