

# MAGELLAN BLOCKS + D-Wave

March 2019



# Not a programmer? Not a problem. Machine Learning for all.

MAGELLAN BLOCKS makes Machine Learning simple.

The screenshot displays the 'Flow Designer' interface. On the left, a 'BLOCK list' sidebar contains categories like Basic, API, BigQuery, Machine Learning, Salesforce, GCP, G Suite, Box, and Clipboard, with various flow blocks such as 'Start of Flow', 'Parallel branch', 'Slack notice', 'Output to log', 'Construct object', 'End of Flow', and 'Convert array of objects'. The main workspace shows a flow diagram with two parallel paths. The left path starts with 'Start attendee prediction', followed by 'Create prediction data', 'Predict attendees', 'Load to single table from GCS', and 'End attendee prediction'. The right path starts with 'Start user registration', followed by a 'Parallel branch' that splits into 'Read in dates' and 'Read in users'. Both paths then merge and proceed to 'Delete duplicate users', 'Fill in user info', and finally 'End user registration'. On the right side, a 'Properties' panel for the 'Start of Flow' block shows fields for 'BLOCK name' (set to 'Start user registration'), 'Auto-execution schedule' (set to '0 \*\*\*\*'), and options for 'Success notices' and 'Failure notices'. A 'BLOCK memos' section is also visible at the bottom of the properties panel.



## New Store Location Planning

FamilyMart used MAGELLAN BLOCKS to train a machine learning model using data for existing store locations.

Now they can accurately predict the first year of sales for potential stores in new locations.

The FamilyMart logo consists of a green horizontal bar at the top, followed by the text "FamilyMart" in a blue, sans-serif font, and a blue horizontal bar at the bottom.

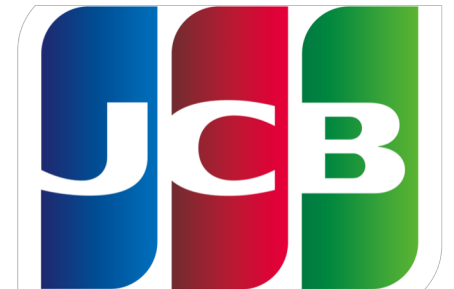
FamilyMart



## Call Center Staffing

JCB trained a model to predict incoming calls to their support center by day and needs.

They want to schedule their staff more efficiently.





## Fishing

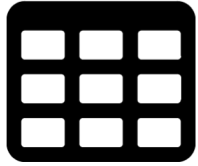
Fish habitats change rapidly depending on global weather fluctuations.

By training a model with environmental data and past catch histories, captains can predict the best places to find fish.

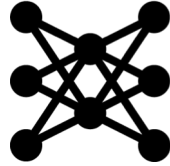


A long-exposure photograph of a city at night, featuring light trails from traffic and buildings, with a prominent blue and white color palette. The image captures a dense urban landscape with numerous skyscrapers and lower-rise buildings, all illuminated with various lights. The most striking feature is the multitude of light trails, primarily in shades of blue and white, which create a sense of motion and depth. These trails radiate from the center of the frame towards the edges, suggesting a perspective of looking down a long, busy street. The overall atmosphere is futuristic and dynamic, with a strong emphasis on light and movement.

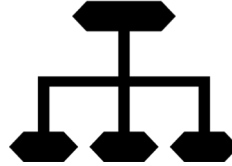
**The more you can predict the future,  
The more choices you have to select from.**



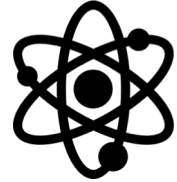
1. Data Preparation



2. Prediction Model



3. Prediction Flow



4. Optimization

We will add a combinatorial optimization service using D-Wave to our existing machine learning services.

Table: [Change](#) | [View](#) | [Refresh](#)

	DATE (YMD)	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]	電 料 費 [円]
1	2024-03-01	110000						110			1
2	2024-03-01	110000						110			1
3	2024-03-01	110000						110			1
4	2024-03-01	110000						110			1
5	2024-03-01	110000						110			1
6	2024-03-01	110000						110			1
7	2024-03-01	110000						110			1
8	2024-03-01	110000						110			1
9	2024-03-01	110000						110			1
10	2024-03-01	110000						110			1
11	2024-03-01	110000						110			1
12	2024-03-01	110000						110			1
13	2024-03-01	110000						110			1
14	2024-03-01	110000						110			1
15	2024-03-01	110000						110			1
16	2024-03-01	110000						110			1
17	2024-03-01	110000						110			1





case  
study



5,000,000 vending machines in Japan

Most are outdoors.

They are restocked by delivery persons.



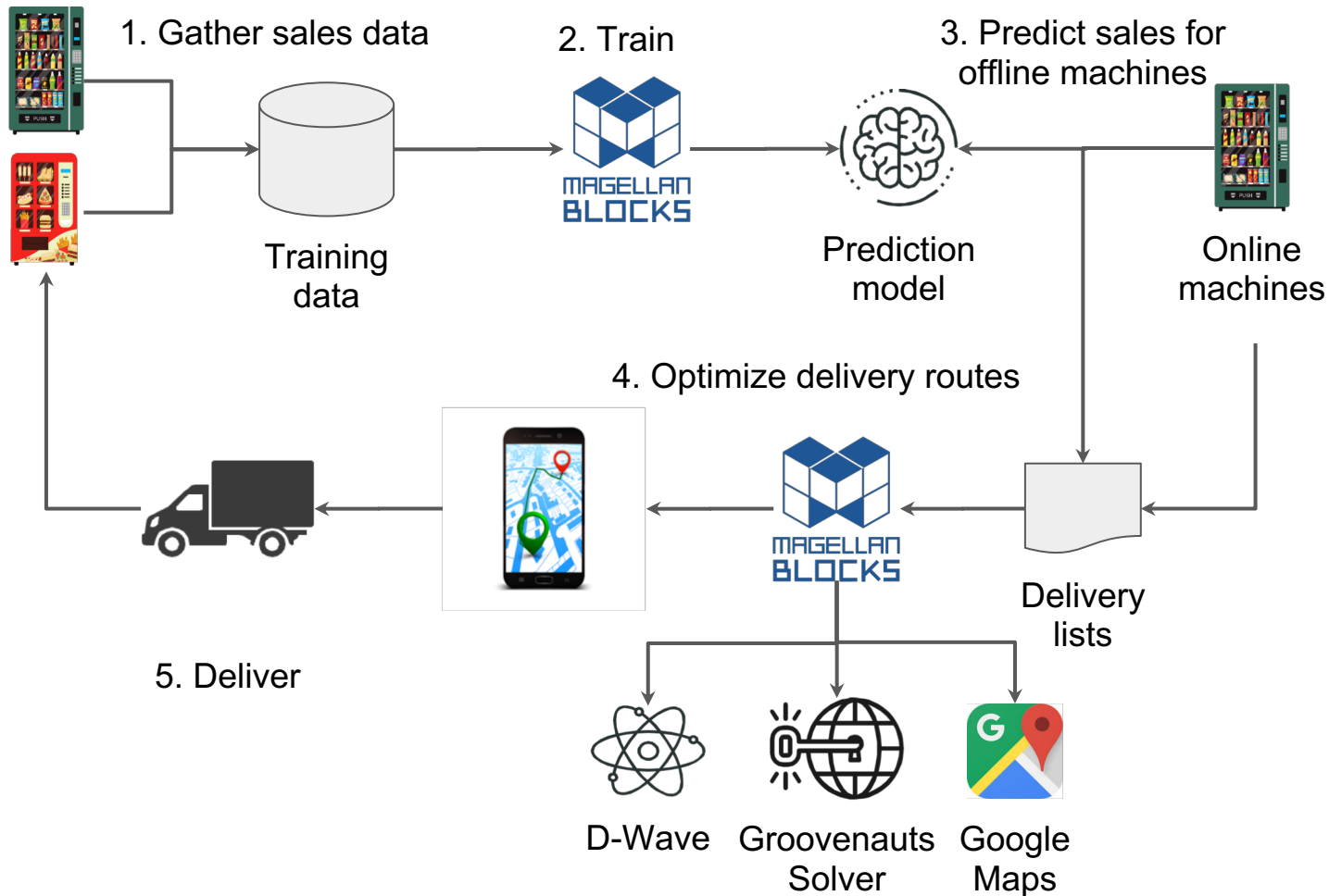
Traveling around to each machine to make sure they are stocked is inefficient.





Projects to add IoT tech for checking stock are progressing, but the costs are very high.

Our plan: Create a model to accurately predict stock for offline machines, then calculate the optimal shipping routes.



☰ Friday, March 22 ▾



Map Satellite

Locations	Replenishment nums	Distances	Durations
12	321	18.8 km	1.2 hours

**Excelsior Hotel Gallia, a Luxury Collection Hotel, Milan**  
Piazza Duca d'Aosta, 9, 20124 Milano MI, Italia Start

1.9 km 8 mins

**Hotel Marconi**  
Via Fabio Filzi, 3, 20124 Milano MI, Italia Done

3 m 1 min

**Restaurant Pizzeria Maruzzella**  
Piazza Guglielmo Oberdan, 3, 20129 Milano MI, Italia Done

1.8 km 8 mins

**U! As you want me**  
Via Lazzaro Spallanzani, 10, 20129 Milano MI, Italia Done

4.4 km 15 mins

**Carrefour Market**  
Via Gustavo Modena, 8, 20153 Milano MI, Italia Done

0.4 km 1 min

**Carrefour Express** Done

Report Break

Status  
**Before departure**

