

A large, irregular watercolor splash in shades of blue and white, centered on the page. The splash has a soft, painterly texture with varying intensities of blue. Below the splash, there are scattered, smaller blue watercolor splatters and dots, creating a dynamic, artistic feel.

SUBARU ADVERTISING CAMPAIGN

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Project Overview

- ✓ Analyzing the dynamic dataset of Subaru advertising campaign from Goodway Group
- ✓ Providing insights for parameters that drive ads engagement. (GTC, Clicks)
- ✓ Listing features that would make the advertising opportunity up for bidding process. (Win Rate)

Data Preparation

Data
Cleansing

Unique Key
Month of Date
Campaign Name
IO Tactic

Site
Categorization
36

Season
4
Holiday/Event
20

Conversion of
'long to wide'
1213 rows

A large, irregular watercolor splash in shades of orange, yellow, and light brown serves as a background for the text.

GTC / Conversion Rate

Predict conversions

Training Data R-square	0.9801
Testing Data R-square	0.9411
Training Data MSE	123544.401
Testing Data MSE	178743.523

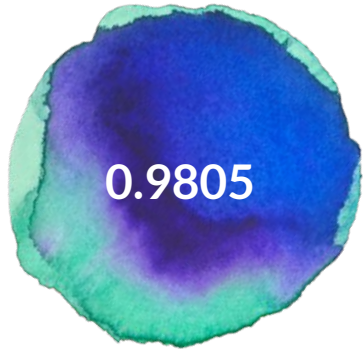


LassoLarsCV Result

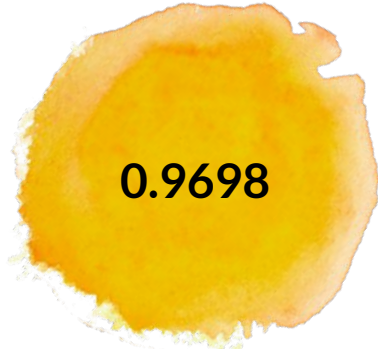
Feature	Coefficient	Rank
Spring	481.8424	1
Science_Site	224.1416	2
Game_Site	96.6833	3
9545*9545AF	68.8240	4
Personal_Finance_Site	66.0463	5
other_DT	-8.4489	-5
switch_concept_SV	-14.9482	-4
Autumn	-32.5415	-3
rtkio_sv	-89.9859	-2
Military_Site	-540.8146	-1

Clicks

Predict the number of clicks a hypothetical campaign would get



**Training Data
R-square**



**Testing Data
R-square**



**Training Data
MSE**




**Testing Data
MSE**

LassoLarsCV Result

Feature	Coefficient	Rank
Yandex_Browser	473.9902	1
Military_Site	149.0807	2
nativo_SV	62.6827	3
Winter	55.7841	4
9545x9545_AF	36.0826	5
Summer	-6.2763	-5
Pets_Site	-7.3230	-4
Careers_Site	-7.9010	-3
Anime_Site	-12.9083	-2
Science_Site	-39.2541	-1

To Maximize Clicks

- ✓ Your ideal browser to run a campaign is **Yandex**
 - ✓ Your campaign performs best on **Sites of Military**,
but bad on Pets Site, Careers Site, Anime Site, and Science Site.
 - ✓ The supply vendor of **Nativo** is an awesome platform to start your campaigns.
 - ✓ Your ideal season to run a Subaru campaign is on **Winter** instead of Summer
 - ✓ For display advertising campaign, the format of **9545x9545**, which is the largest picture size, will definitely attract more people to click
- 

Win Rate

Predict the average win rate for the campaign

0.7875

Training Data
R-square

0.7723

Testing Data
R-square

91860

Training Data
MSE

264860

Testing Data
MSE

Light Gradient Boosted Trees Regressor w/ Early Stopping

Feature	Feature Effects	Rank
Mobile_DT	100%	1
noon_TOD	25%	2
Firefox_Browser	24%	3
Safari_Browser	24%	4
Yandex_Browser	20%	5
dawn_TOD	20%	6
Opera_Browser	14%	7
Tablet_DT	13%	8
Monday_Dow	10%	9
Edge_Browser	10%	10

Thanks!

Any questions?

