

Predicting Eurovision Finalists

System Admin Guide

Copyright Information

This project is not protected by copyright. However, it would be appreciated if any use of this project would be credited back to Kari Baker, with a link to the GitHub page:

<https://github.com/kcgb20/GCU-Capstone>

Legal Notice

Predictions provided by this project are not guarantees. The user accepts all risks when using these predictions. Creator is not to be held liable for any monetary gain or loss based on the use of predictions in this dashboard or any that come from the use and manipulation of the Python code.

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System Overview and Configuration

To view this dashboard, you must be using a desktop computer that has an internet connection and a web browser. If you intend to download the dashboard to your local machine or manipulate the Python code, your computer must be able to run the desktop version of Tableau Public and Python. For system requirements for these programs, please visit the following:

<https://www.tableau.com/products/techspecs>

<https://www.python.org/downloads/operating-systems/>

To download Tableau Public or Python, visit the following and follow their documentation:

<https://public.tableau.com/en-us/s/download>

<https://www.python.org/downloads/>

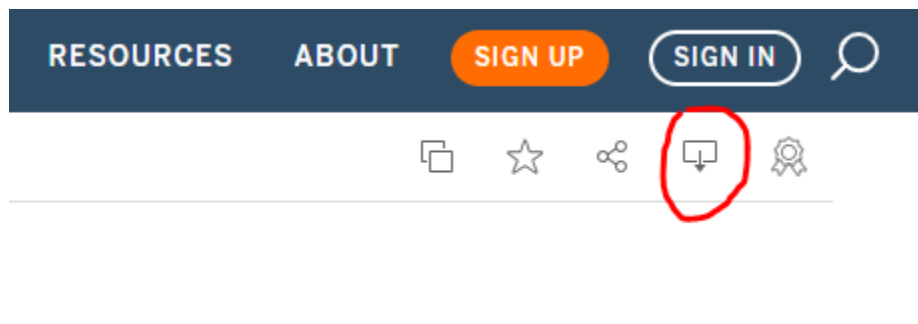
To use the Tableau dashboard or Python code, visit the following pages:

<https://public.tableau.com/app/profile/kc.grace/viz/Baker->

[DataScienceCapstone/LandingPage?publish=yes](https://public.tableau.com/app/profile/kc.grace/viz/Baker-DataScienceCapstone/LandingPage?publish=yes)

<https://github.com/kcgb20/GCU-Capstone>

The Tableau dashboard can be downloaded by clicking the following button on the above link:



The Python code can be copy-and-pasted into your preferred IDE from the GitHub link.

System Maintenance

This project requires no ongoing system maintenance. This is intended to be a one-time model creation for personal interest. However, if someone does want to use the model to make predictions for future instances of Eurovision, they will need to collect data, run the Python code, and update the Tableau dashboard.

Data Collection

There are several different data sources that will need to be visited to gather all the data for this dashboard as follows:

- Wikipedia – www.wikipedia.org – This will be used to gather the variables Country, Artist, Song, Year, Semi, Order, English, and Returning.
- YouTube – www.youtube.com/eurovision - Each individual music video's page will need to be visited to collect views and compute the like-dislike ratio. A browser plugin, like [Return YouTube Dislike](#), will need to be used to view the dislikes for a video as YouTube has recently removed this data.
- Spotify – www.spotify.com – Each individual artist's page will need to be visited to collect the number of plays. It is also important to create your own playlist including each song to use for Chosic.
- WiwiBloggs – www.wiwibloggs.com – WiwiBloggs needs to be visited for their WiwiJury Score blog entry.
- OGAE – www.ogaeinternational.org – OGAE needs to be visited to get their OGAE ranking.
- Eurovision World – www.eurovisionworld.com – Eurovision World compiles information on odds that you can gather semi-final odds from.

- Chosic - <https://www.chosic.com/spotify-playlist-analyzer/> - Your Spotify playlist must be run through the Chosic algorithm to get the following variables: Pop, Dance, Energy, Acoustic, Happy, Speech, Live, Loud, and Tempo.

Python Code

This guide assumes that you only want to run new results through the model rather than make alterations to the model. If you want to make alterations to the model, please refer to the User Guide on the GitHub page.

The only thing that you should have to do with the Python code is change the path to the data import, add new years to the function, and change the data export path:

```
#Load data
esc_data = pd.read_csv(r"C:\Users\Kari\Documents\Data Science\Capstone\Eurovision Data.csv")
esc_data.head()
```

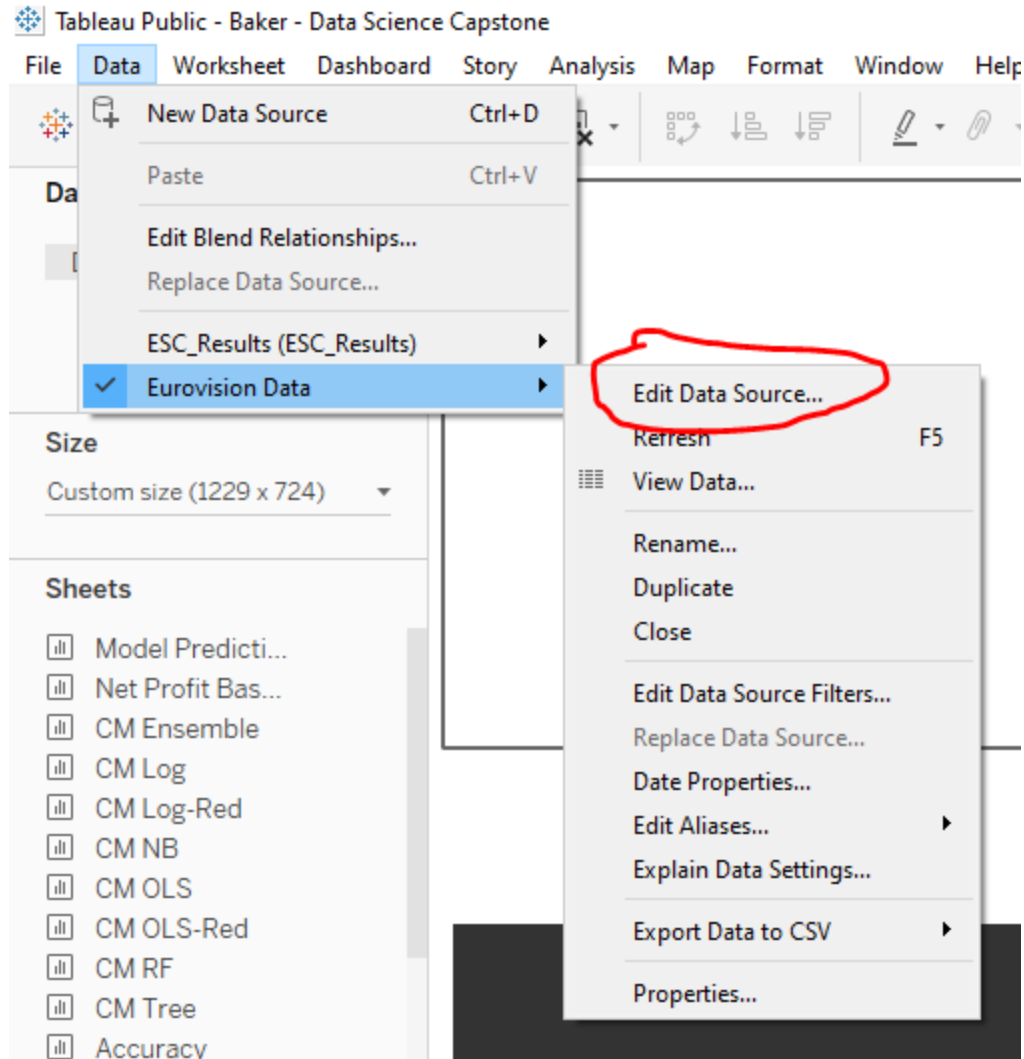
```
results_2012 = runmodels(2012)
print(results_2012)
```

```
full_esc = pd.concat([results_2021, results_2019, results_2018, results_2017, results_2016, results_2015, results_2014, results_2013, results_2012])
full_esc.to_csv(r"C:\Users\Kari\Documents\Data Science\Capstone\ESC_Results.csv")
```

Tableau Dashboard

To display new information in the Tableau dashboard, you must import the new data into

Tableau. Here is a screenshot of how to do this:



You may also need to edit the filters to ensure that the new years of data are being appropriately displayed in the dashboard. This is how you can edit the filters:

Filters

YEAR(Year): 2017

Marks

All

Automatic

Color

Size

Label

Detail

Tooltip

More Fields

Model Predictions

	Semi-Final	Country	Odds
1		Albania	
		Armenia	
		Austria	
		Azerbaijan	
		Belgium	
		Cyprus	
		Czech Republic	
		Finland	
		Georgia	
		Greece	
		Iceland	
		Latvia	
		Moldova	
		Montenegro	
		Poland	
		Portugal	
		Slovakia	
		Sweden	
2		Austria	
		Belarus	
		Bulgaria	
		Croatia	
		Denmark	
		Estonia	
		Hungary	
		Ireland	7

Filter [Year of Year]

General

Condition

Top

☒ Select from list

☐ Custom value list

☐ Use all

Enter search text

☐ 2012

☐ 2013

☐ 2014

☐ 2015

☐ 2016

☒ 2017

☐ 2018

☐ 2019

☐ 2021

All

None

☐ Exclude

Summary

Field: [Year of Year]

Selection: Selected 1 of 9 values

Wildcard: All

Condition: None

Limit: None

☐ Filter to latest date value when workbook is opened

Reset

OK

Cancel

Apply

Security

There are very few security concerns with this project. Things to keep in mind are that all parts of this project are made with open source software and, therefore, have the concerns about using open source software. Tableau Public also requires all data to be made available publicly, so keep in mind that anything placed on that hosting service will be viewable to anyone; this project does not contain sensitive information, but make sure not to accidentally place sensitive information in your data if you intend to update the dashboard.

Appendix

Useful Websites

<https://www.tableau.com/products/techspecs>

<https://www.python.org/downloads/operating-systems/>

<https://public.tableau.com/en-us/s/download>

<https://www.python.org/downloads/>

Table of Figures

Use these figures to see how well the models should perform on your data:

Accuracy

Calculation2	OLS	OLS-Red	Log	Log-Red	Tree	RF	NB	Ensemble
	0.8194	0.8194	0.8355	0.8032	0.8645	0.9323	0.6419	85%

Precision

Calculation2	OLS	OLS-Red	Log	Log-Red	Tree	RF	NB	Ensemble
	0.8370	0.8370	0.8603	0.8400	0.8920	0.9441	0.8791	0.8807

Recall

Calculation2	OLS	OLS-Red	Log	Log-Red	Tree	RF	NB	Ensemble
	0.8556	0.8556	0.8556	0.8167	0.8722	0.9389	0.4444	0.8611