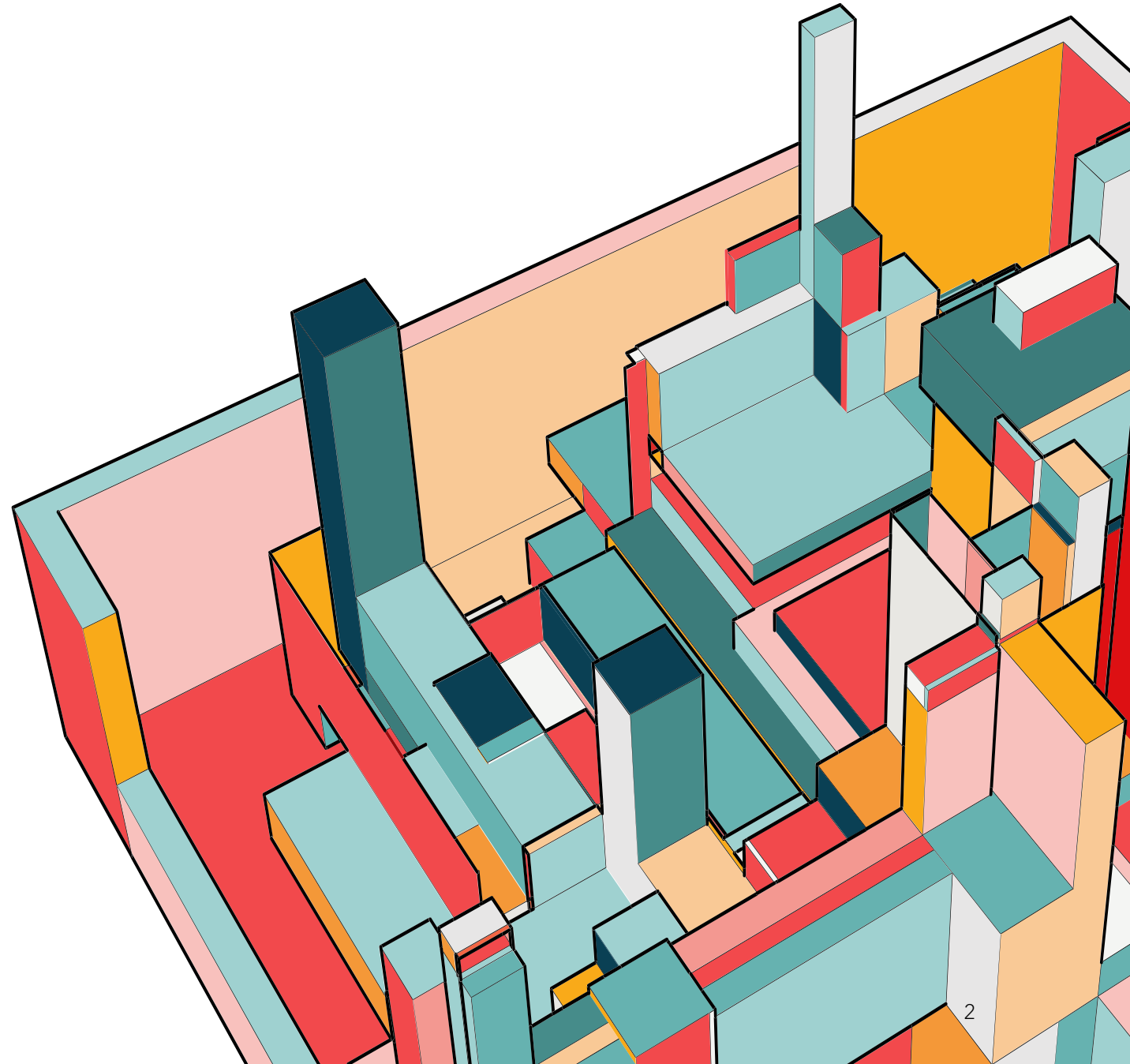BCN
– BARCELONA REAL ESTATE –

MARIANO A. CIARROCCA

Final Project – Barcelona Real Estate

IRON HACK

ABOUT US

Using Big Data and Machine Learning, an BCN, we study asset positioning to identify the most promising investment options. Our predictive models analyze a wide range of factors, including turnover, price/m2 ranges, economic indicators, and demographic variables, to help boost sales and maximize investments. With data science as our foundation, we offer in-depth analyses of present and future investments, predictive market models, and identify potential investment areas for the coming years.

DATA SOURCE

TECHNOLOGY
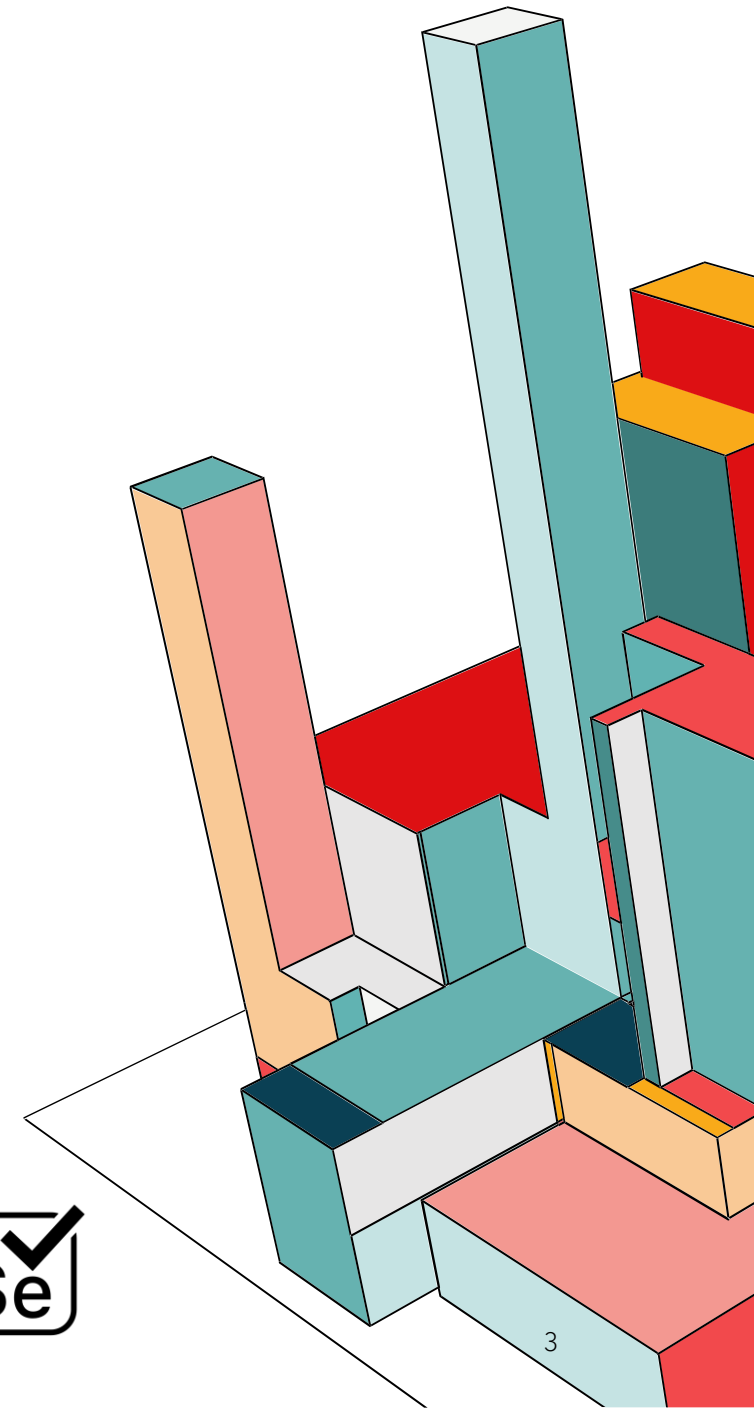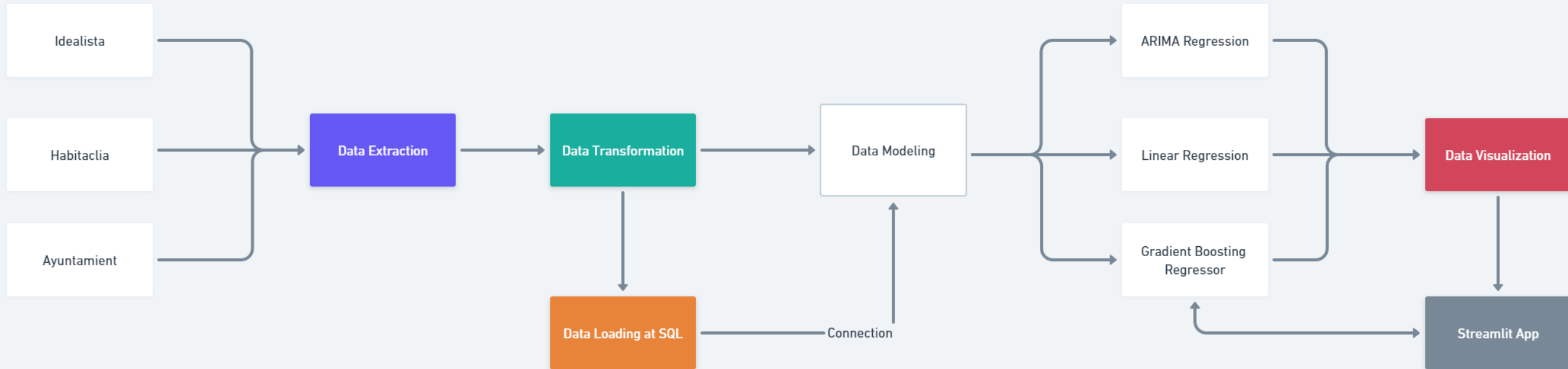
PIPELINE

ML MODELS

1. ARIMA REGRESSION

Time series forecasting model used to predict Euribor Rate for upcoming 12 months. Accuracy of **0.828**

2. LINEAR REGRESSION

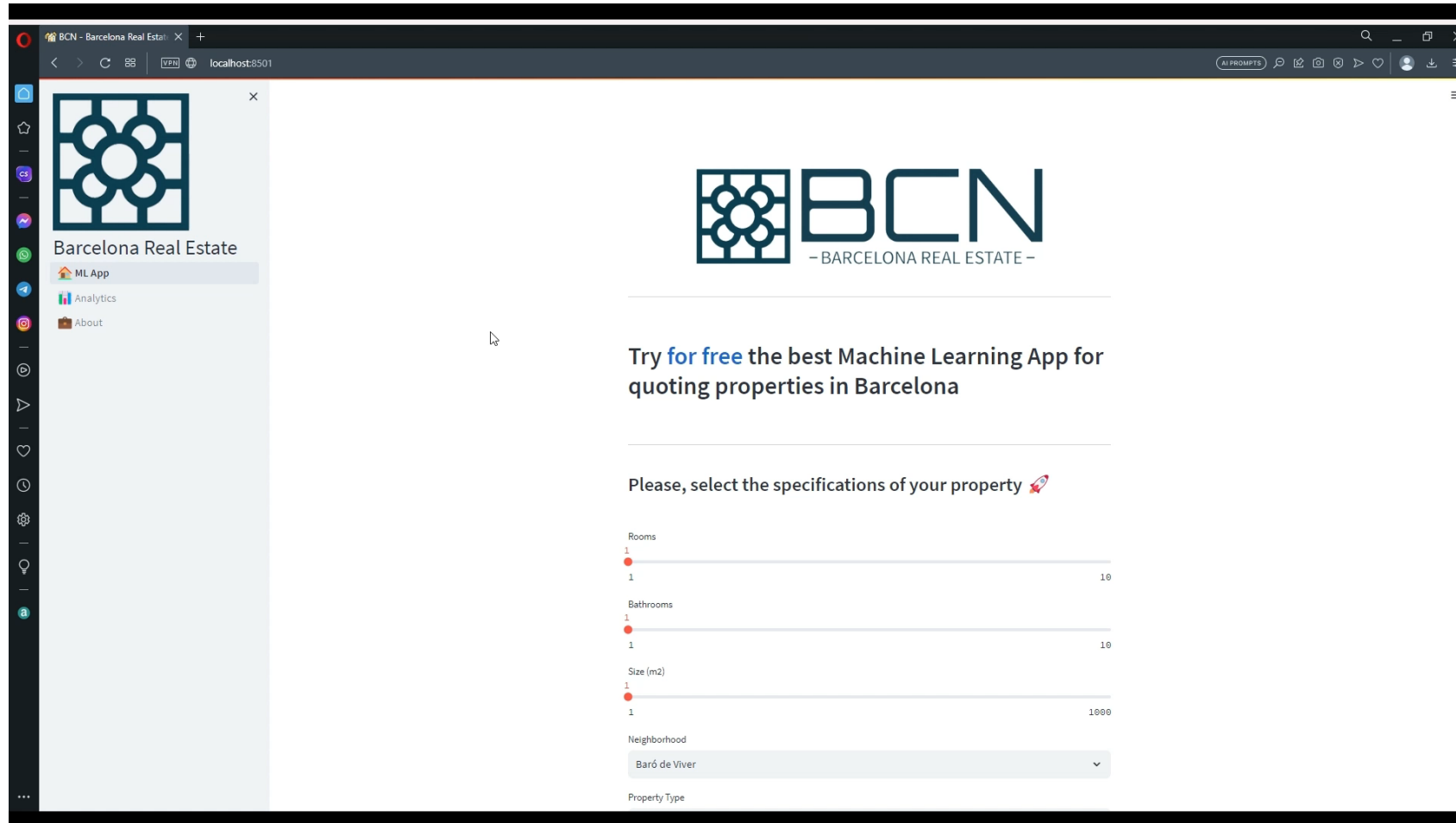Model to predict current next 3 years price/m2 from historical data by neighborhood.

R2	RMSE (Error)
0.9339224374755266	€ 361.36

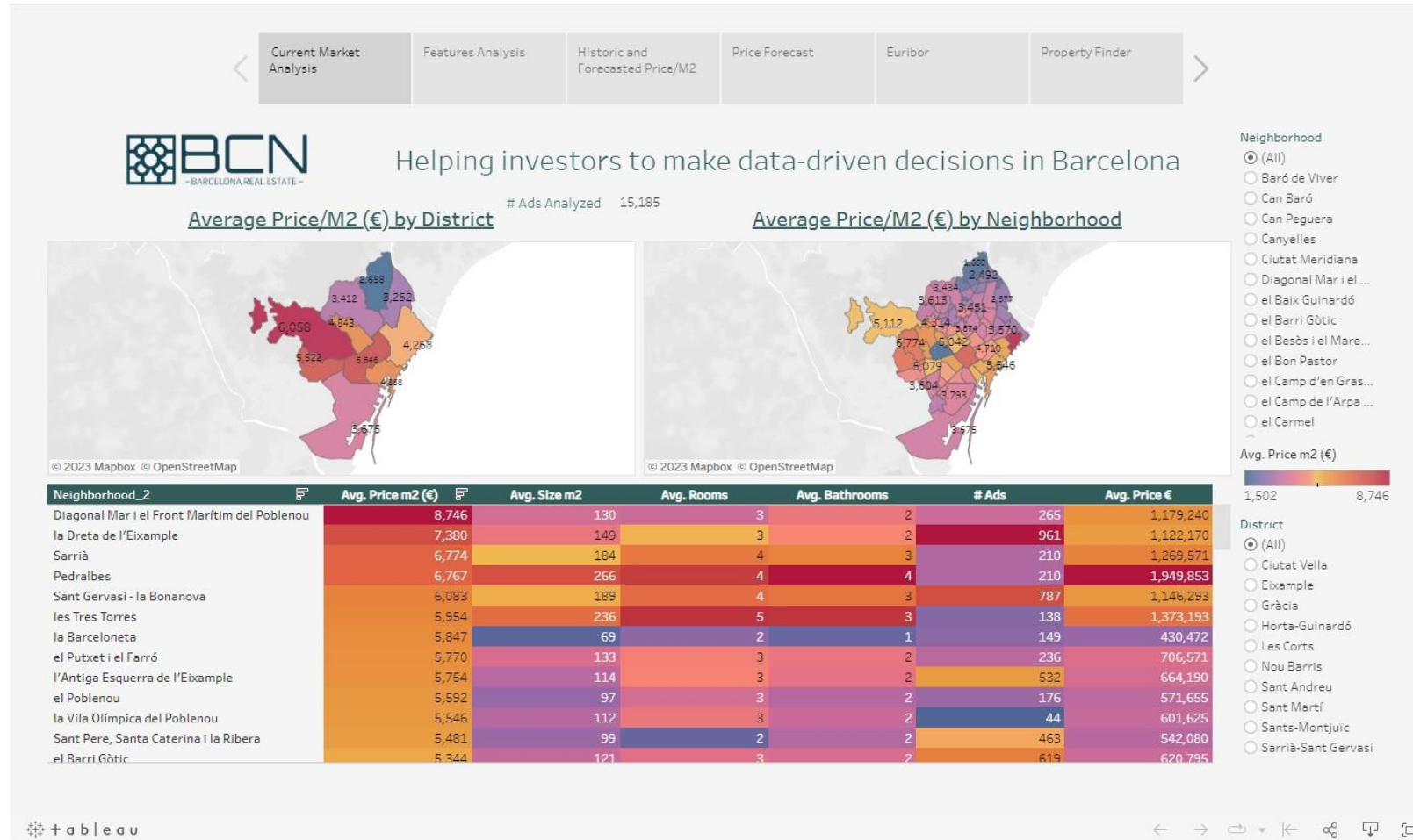## 3. GRADIENT BOOSTING REGRESSOR

Model used to forecast price/m2 based on the current market price and relevant features in a given neighborhood (Streamlit app user).
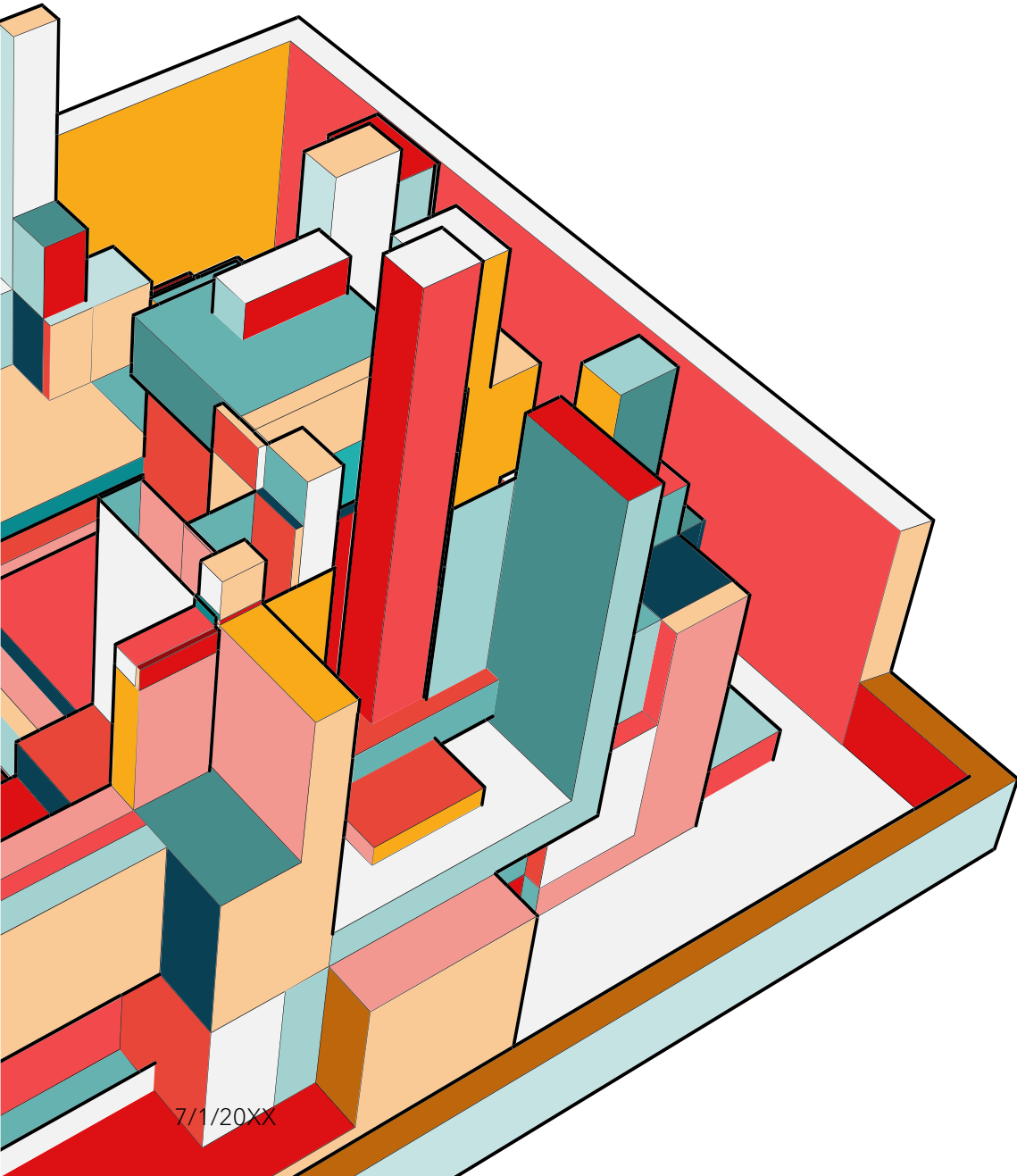
R2	RMSE (Error)
0.6780221810018853	€ 961.46

7/19/2023

STREAMLIT APP

VISUALIZATIONS

NEXT STEPS

- Improve the pipeline (automate)

- Increase the database to improve Models

- Train and test models with larger datasets

- Store data and Streamlit app in the cloud

THANK YOU

Mariano A. Ciarrocca

Data Analyst - Ironhack

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