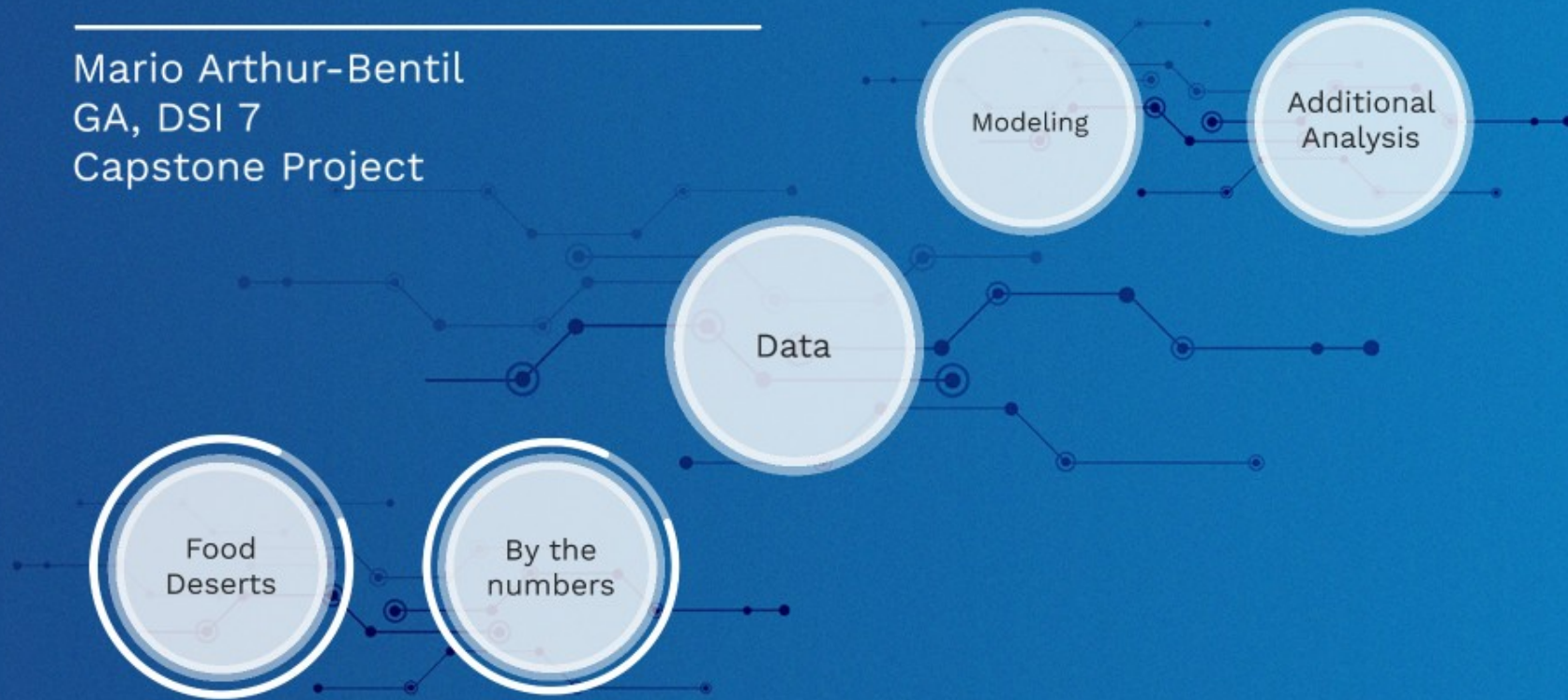


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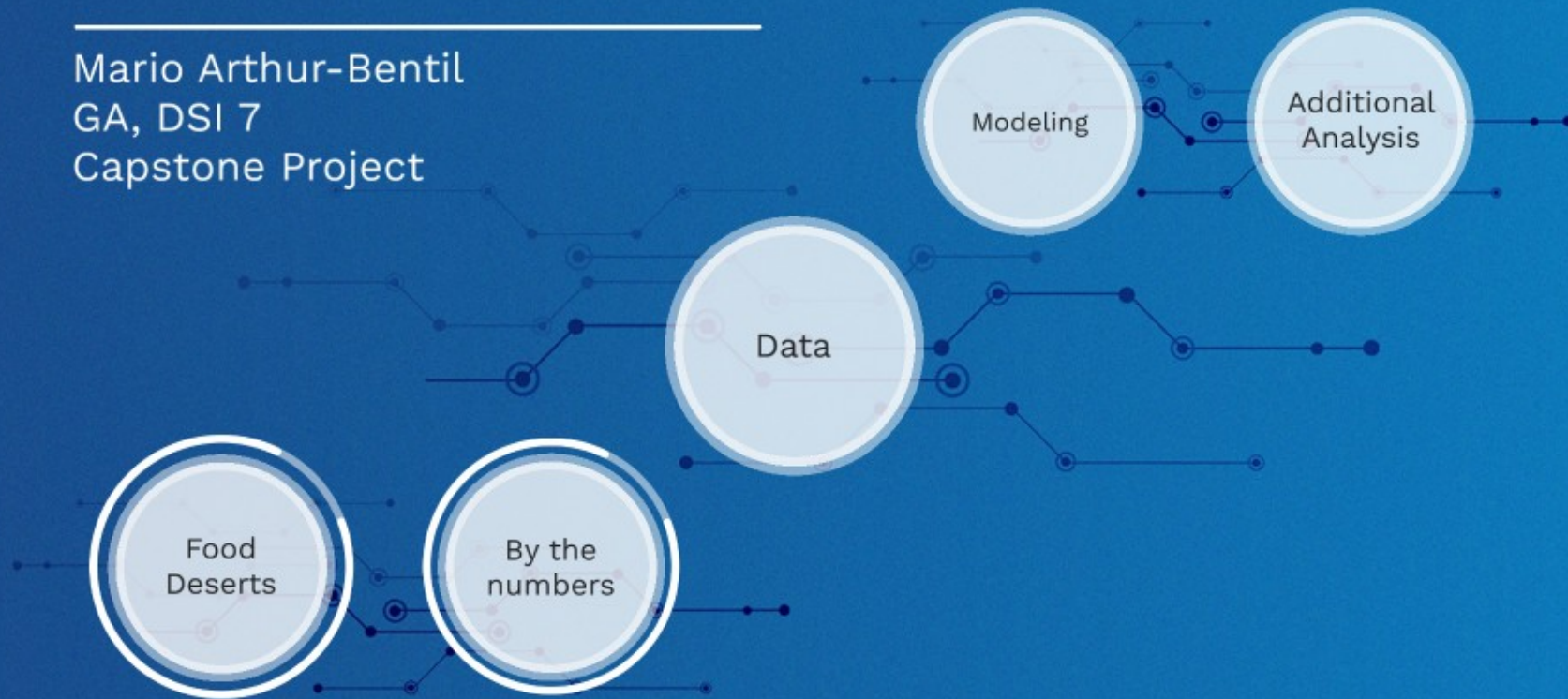
What are food deserts?

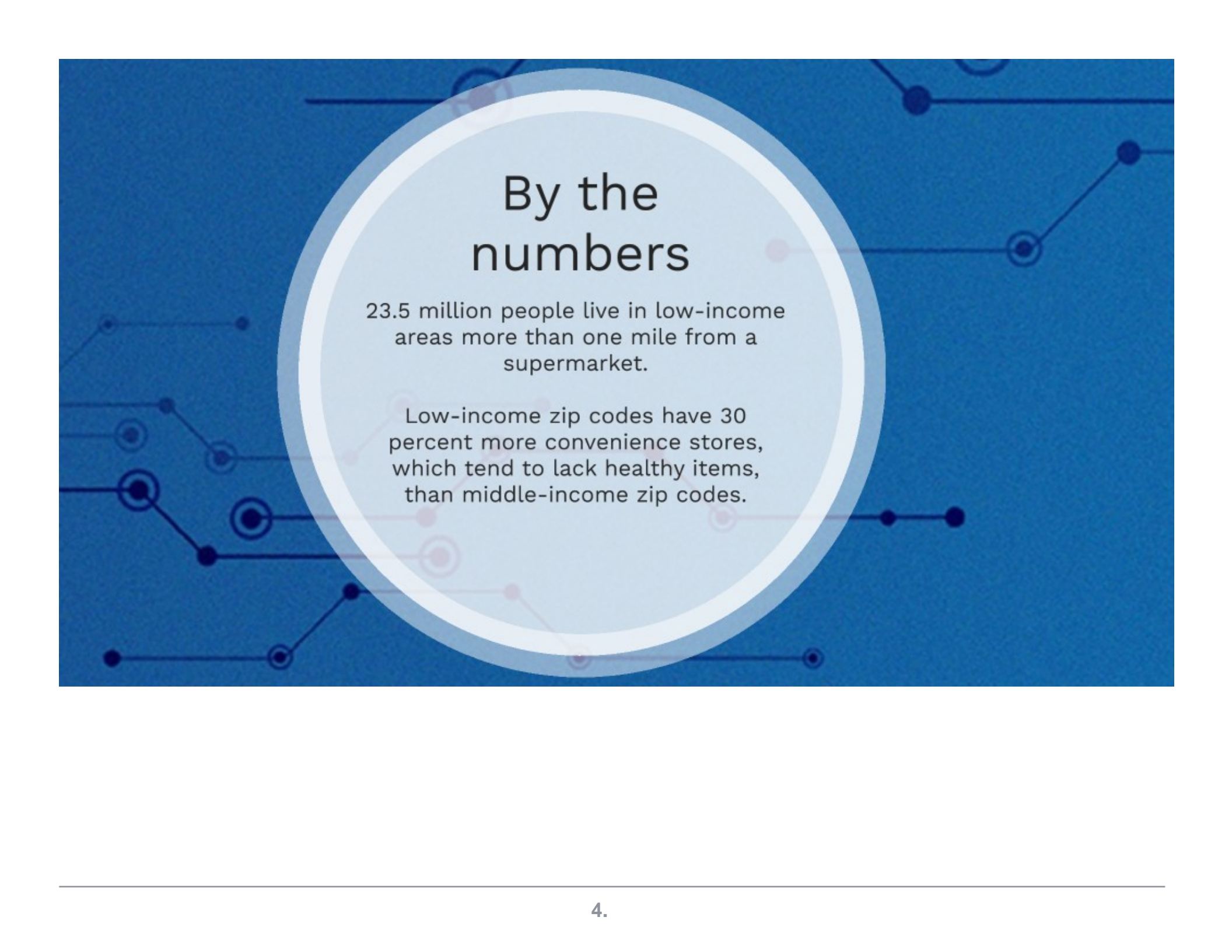


Areas that has limited access to affordable and nutritious food

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The background of the slide is a dark blue grid with white circles at the intersections. A large, light blue circle is centered on the slide, containing the main text. The title "By the numbers" is written in a large, white, sans-serif font.

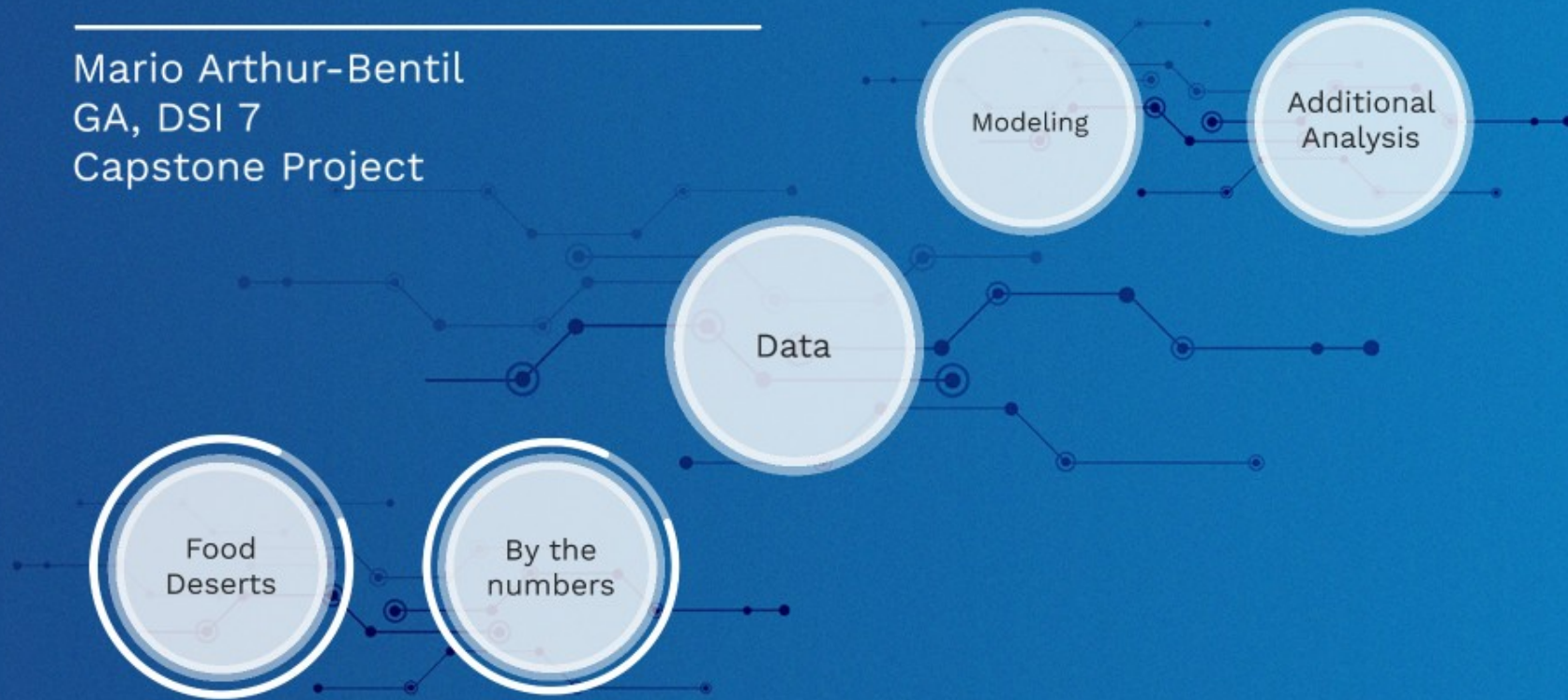
By the numbers

23.5 million people live in low-income areas more than one mile from a supermarket.

Low-income zip codes have 30 percent more convenience stores, which tend to lack healthy items, than middle-income zip codes.

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Data

**U.S. County
Analysis**

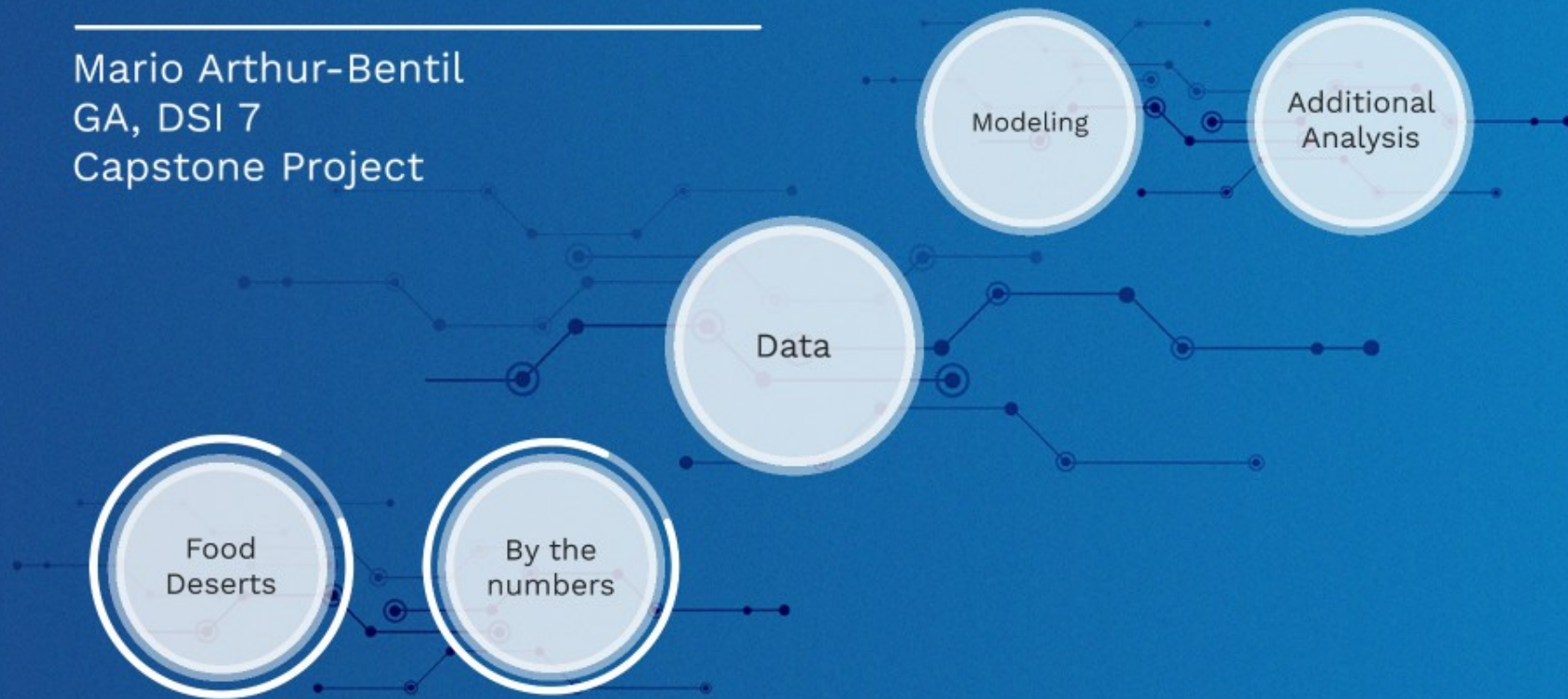
**Indicator
Variable:
Low Access
Population
Percentage**

**X Variables:
Stores, Food
Assistance,
Restaurants,
Food Tax**

**X Variables:
Local Food
Operations,
Health,
Socioeconomic**

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Decision Tree Regression Model

34% R-Squared Score

The features that have the biggest impact are:

- county population
- number of fast food restaurants,
- number of child and adult care participants
- Native American population

Classification
Models

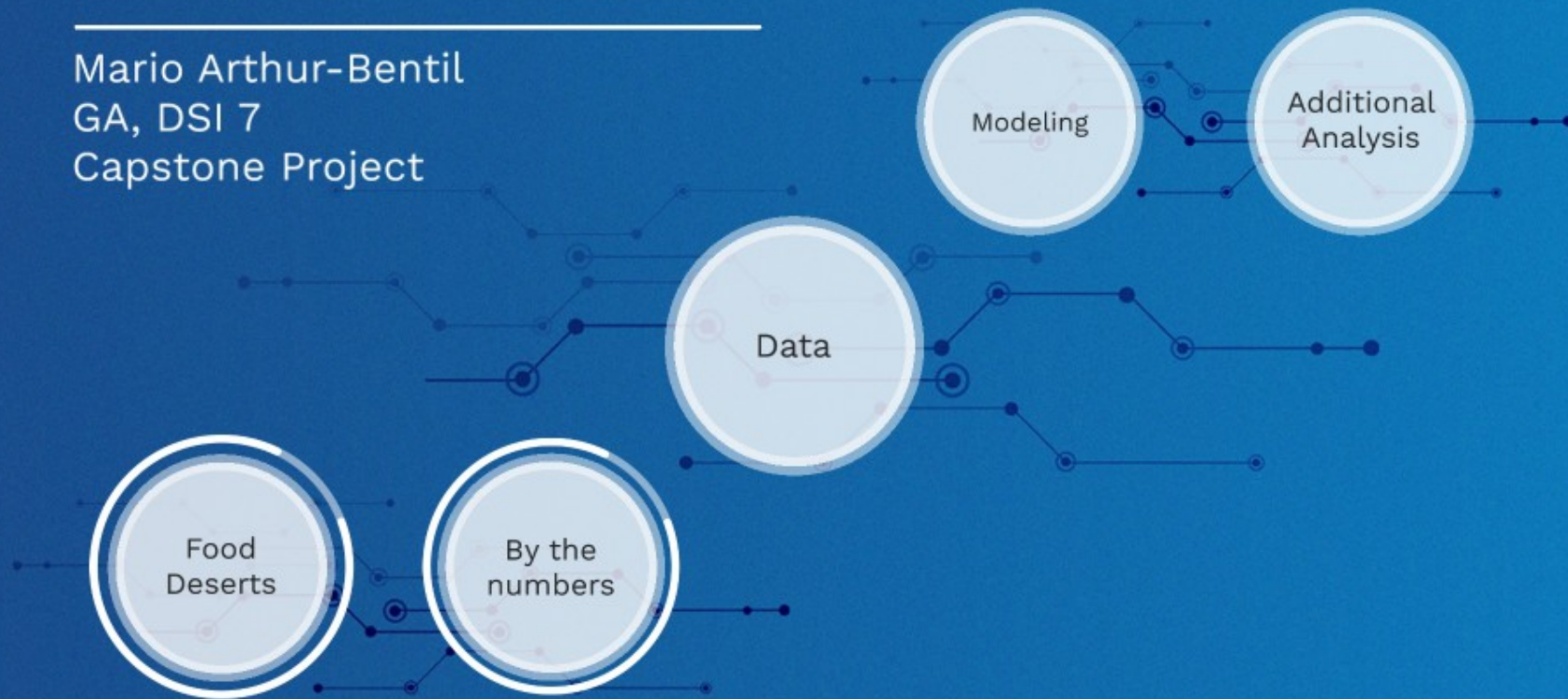
Logistic Regression, KNN, Random Forest Models

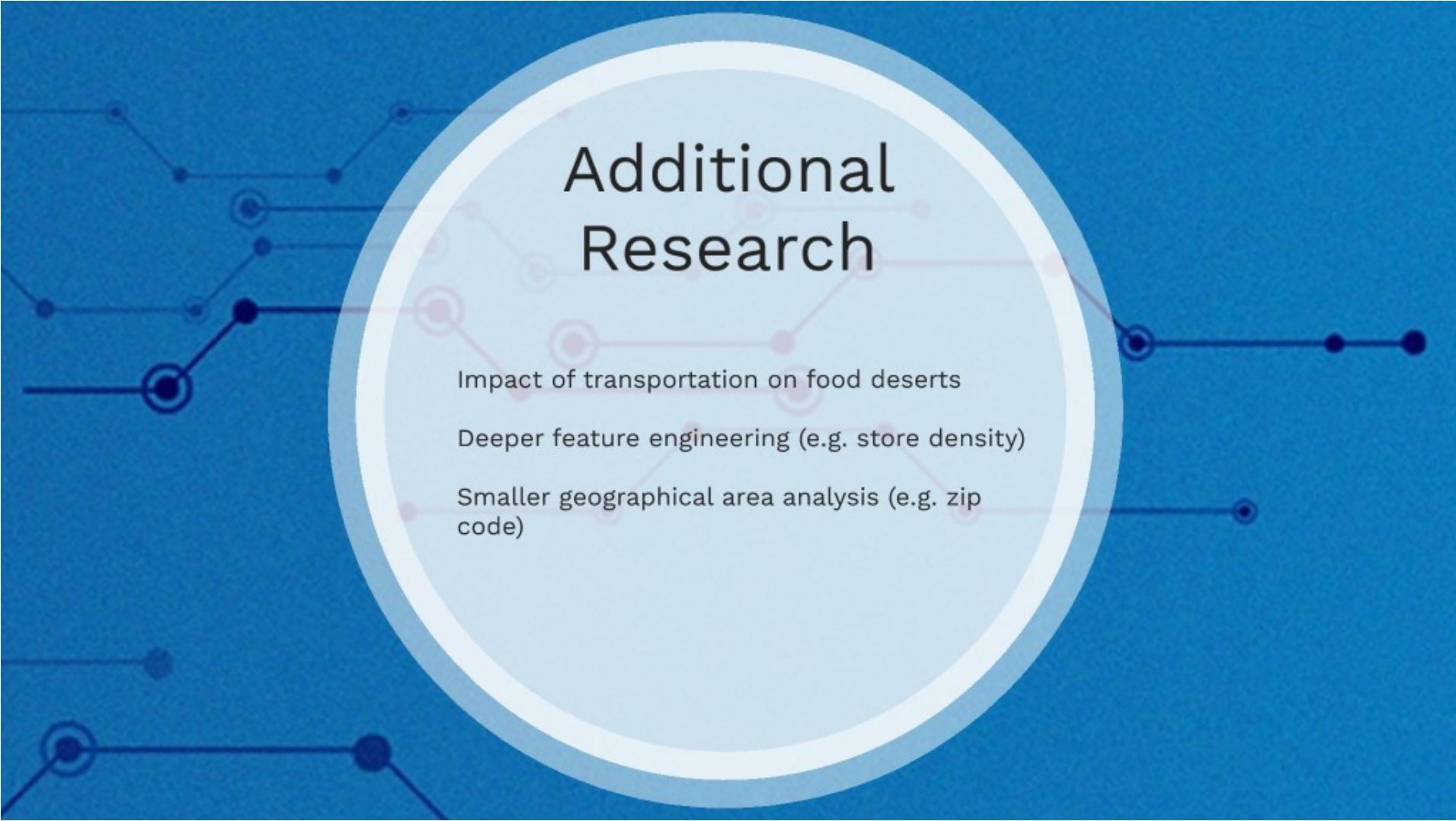
Indicator Variable: median of Low Access: All
Populations percentage

Best performing model: Random Forest (accuracy
70%)

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Additional Research

Impact of transportation on food deserts

Deeper feature engineering (e.g. store density)

Smaller geographical area analysis (e.g. zip code)

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