

Tanzania Water Wells

King Henderson - Litzy Salazar



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Business Problem

- Tanzania Ministry of Water
- Wells: non-functional / needs repair
- ★ - False negative
- False positive





Data

- Drivendata.org
- 40 variables
- Functionality of water wells

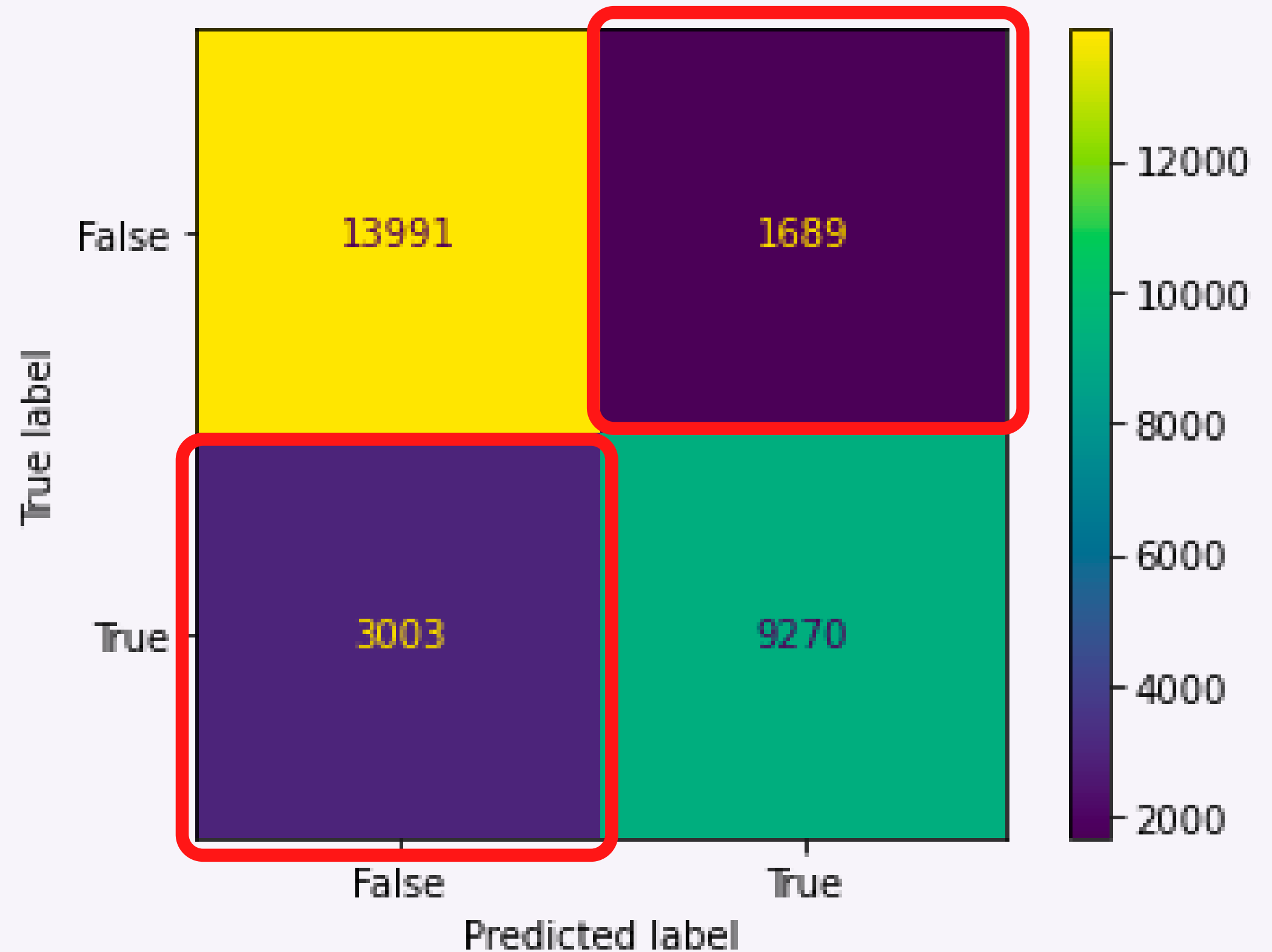
A decorative graphic on the left side of the slide. It features a grid of small black dots arranged in 5 columns and 10 rows. A large blue circle is positioned at the top right of the grid. A blue curved shape is at the bottom left, partially overlapping the grid. A horizontal line with dots at its ends is located below the title.

Feature Importance & Models

Reducing False Negatives

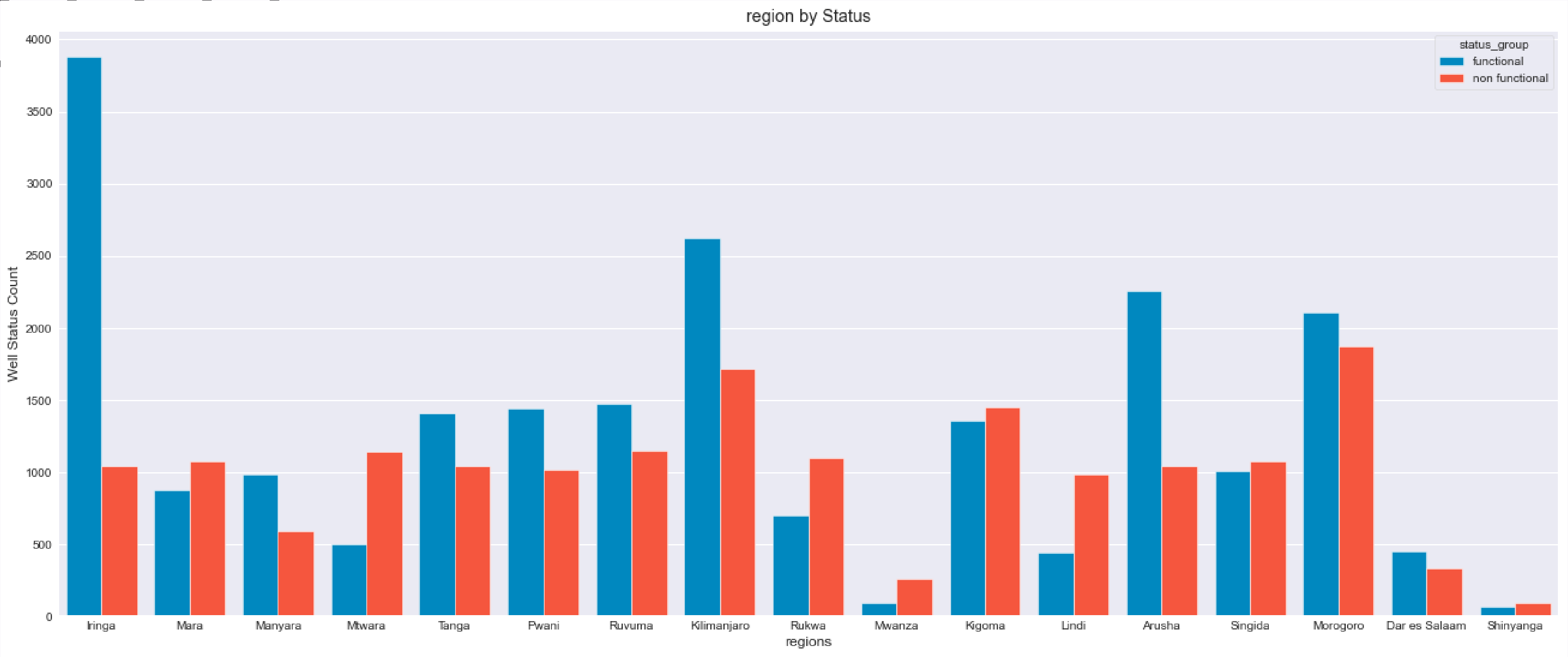
Decision Tree

- Training accuracy: 0.832
- Validation accuracy: 0.780

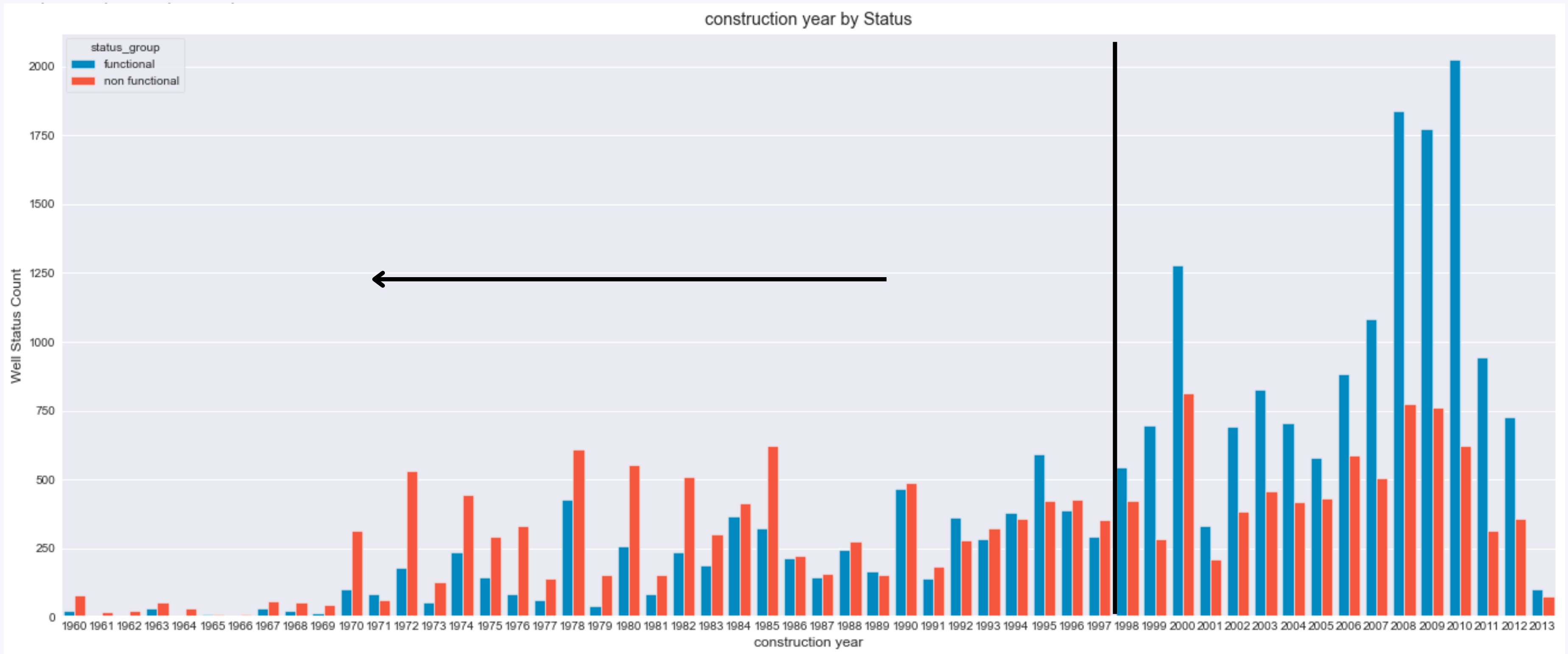


Region by Status

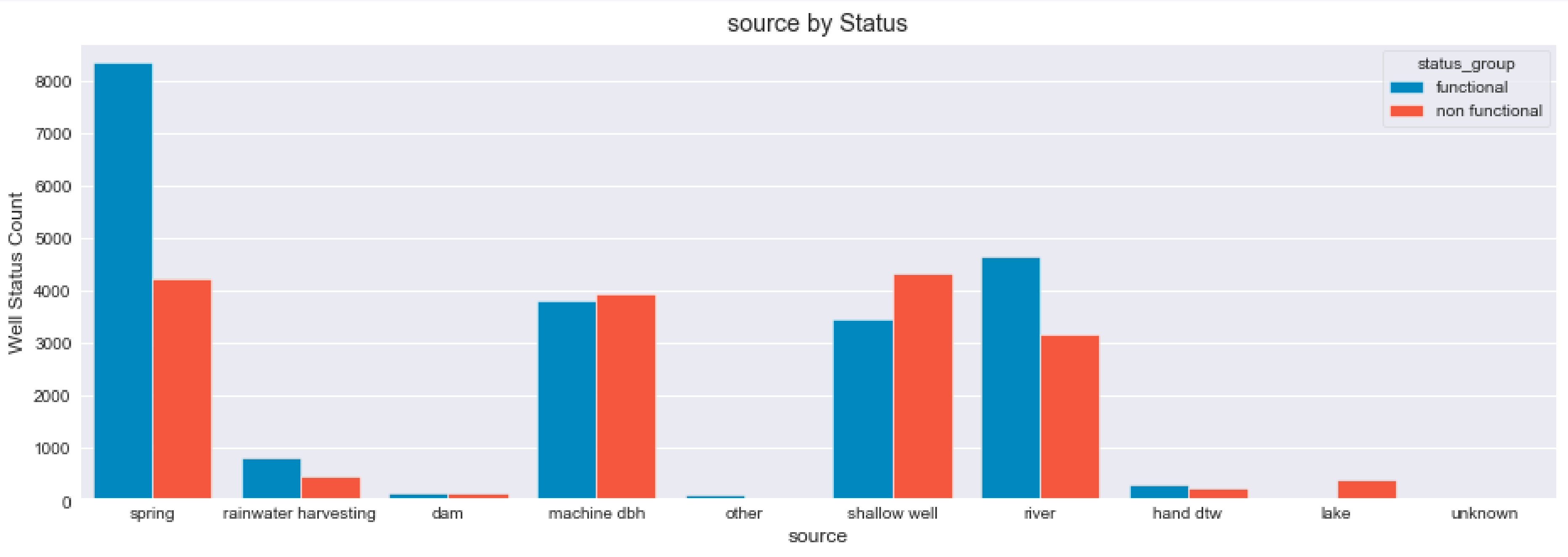
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Construction year by Status

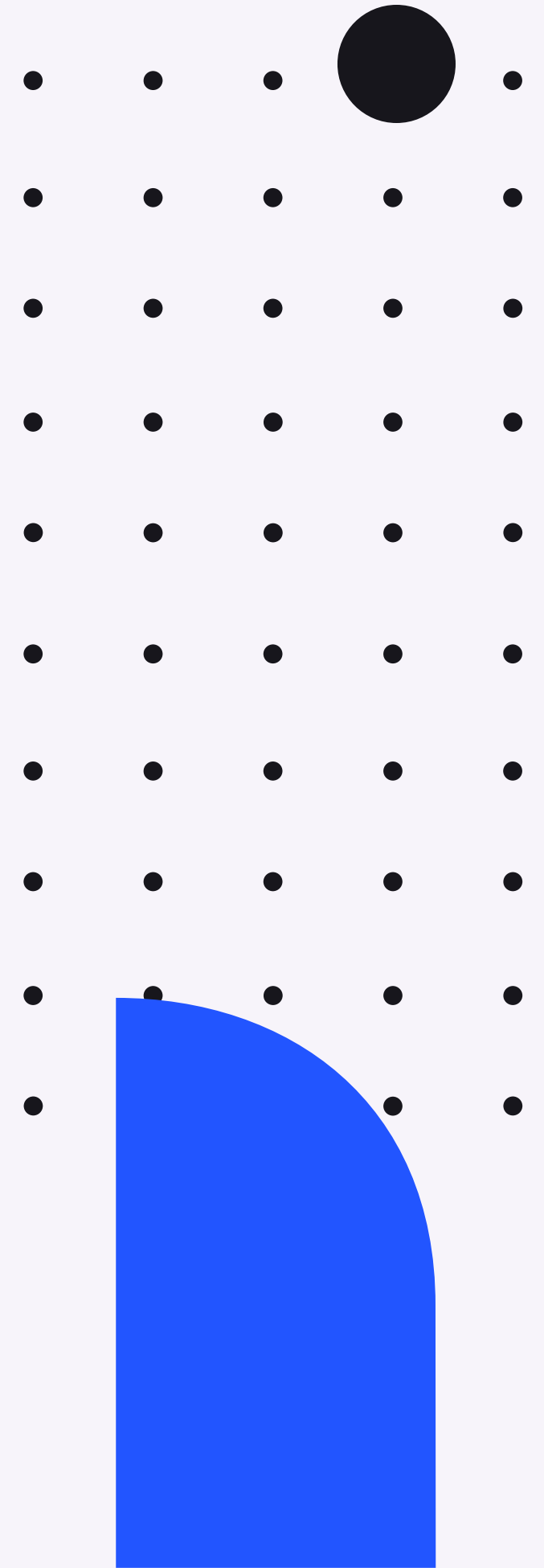


Source by Status



Recommendations

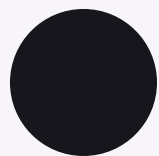
- Focus on wells constructed 1997 and prior
- Focus on features that better predicted target variable (non-functioning well)
 - Construction year
 - Source
 - Region

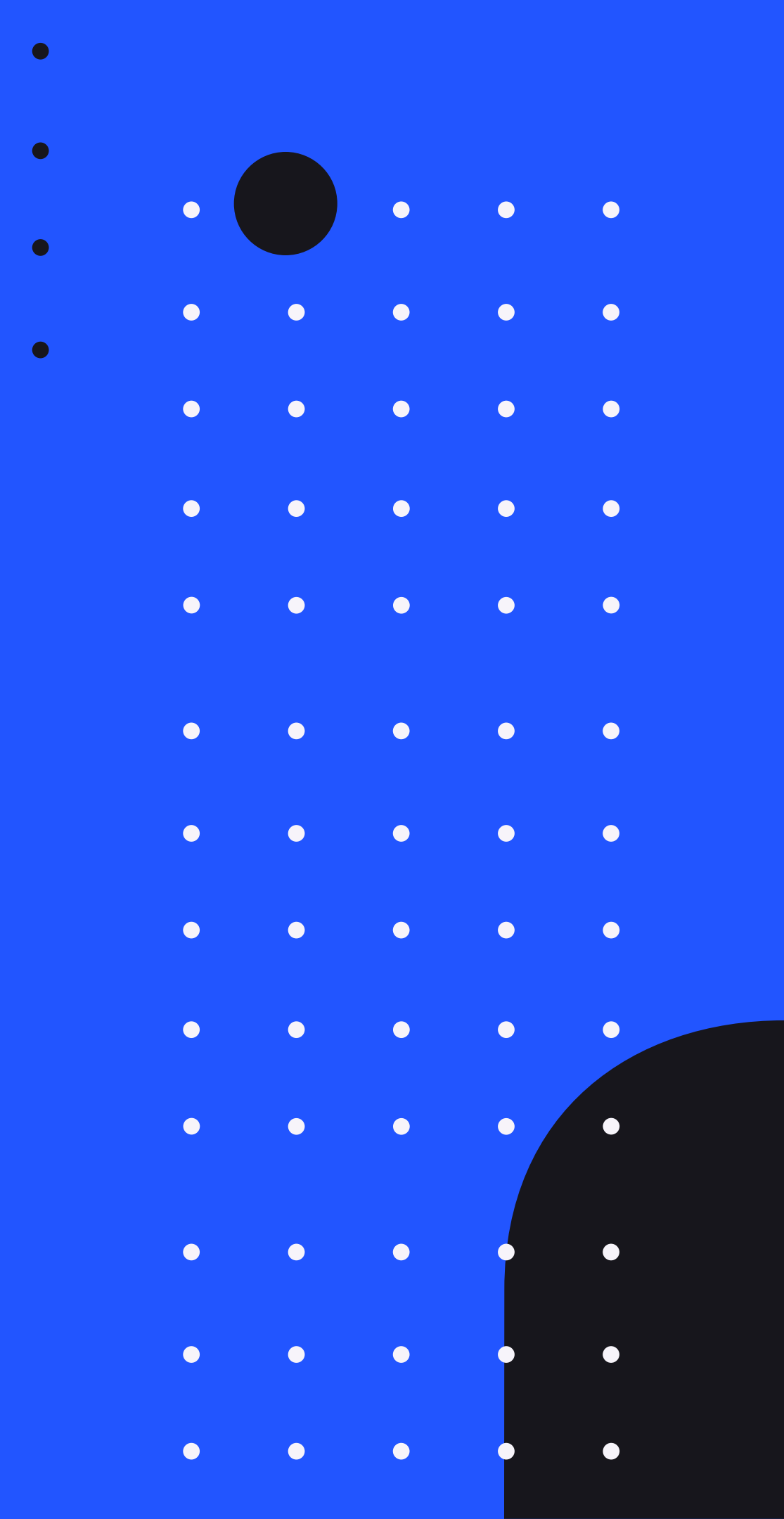
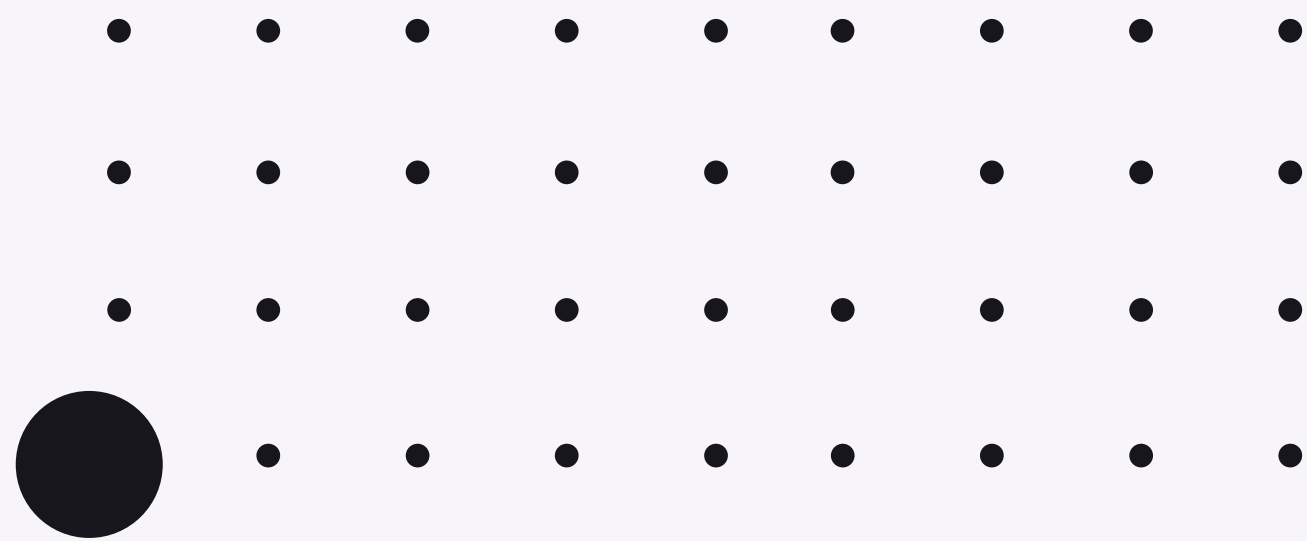


Future Work



- Better understanding of data
- Improving false positives to improve our prediction





Thank you!

