

CRIME IN TORONTO



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Overview

Problem Statement



Understanding the dynamics of crime in different areas and using this knowledge to make Toronto a safer place for all.

Proposed Solution



Utilizing machine learning and predictive models to forecast the crime types most likely to occur.

Estimate of Potential Impact



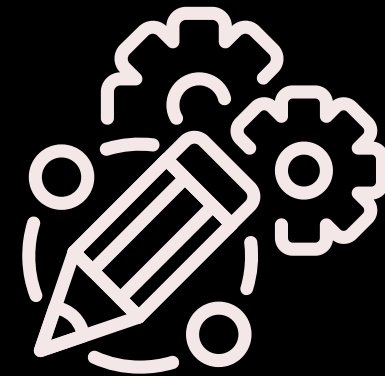
\$43 billion calculated expenses from police overtime to victims' lost wages, funeral expenses and trauma.

DATA SET OVERVIEW



DATA SET

- From Toronto Police
- 9 Files concatenated into 1
- 400,000+ rows



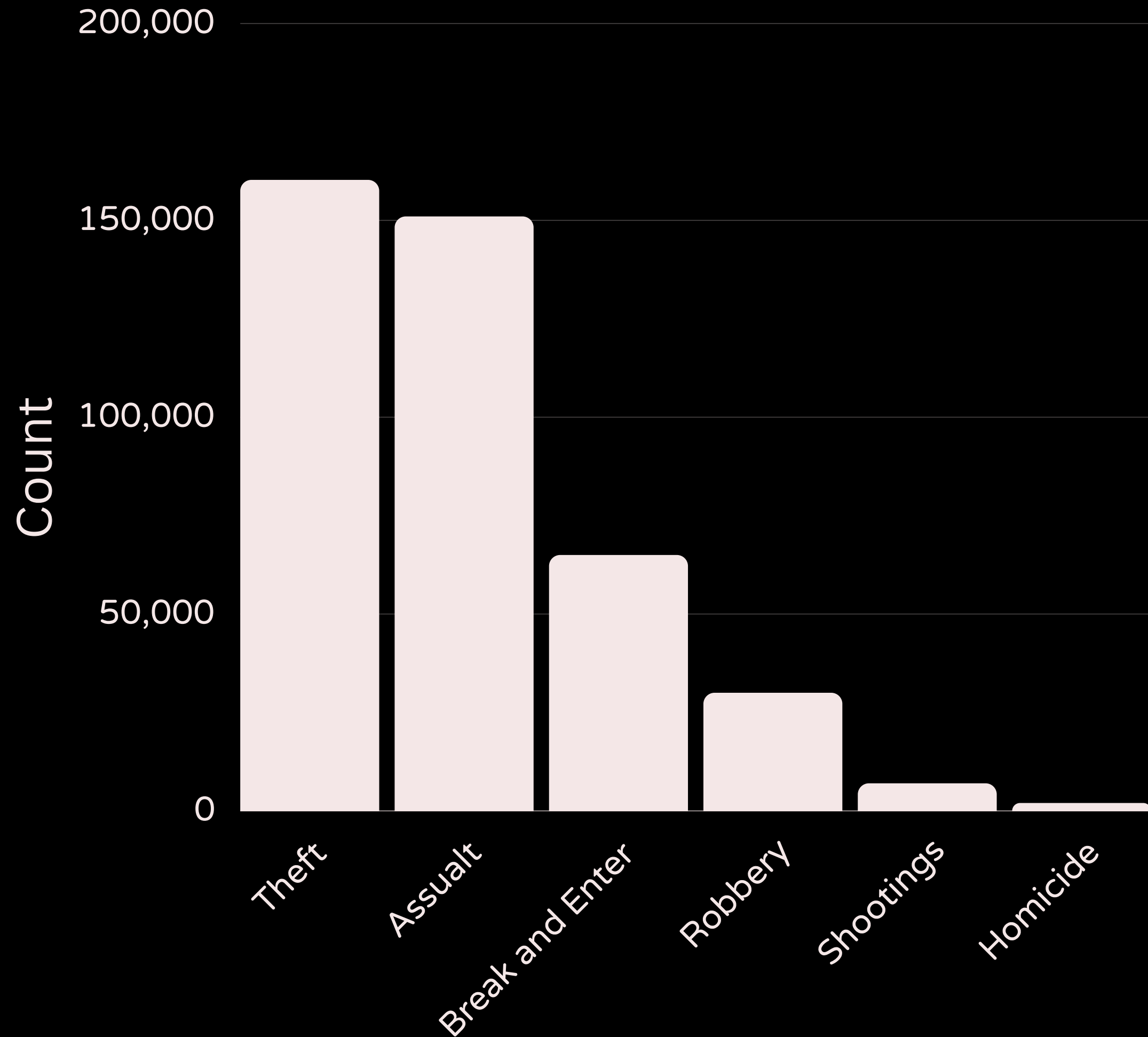
PRE-PROCESSING

- Imputing values
- Dropping redundant columns
- Lowering correlation

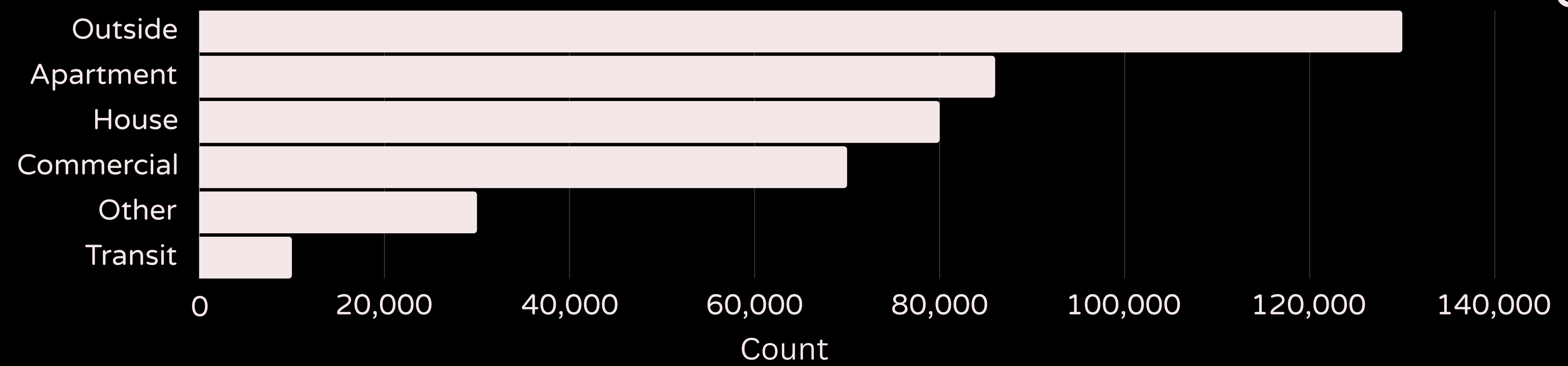
Key Insights

Distribution of Crime Types

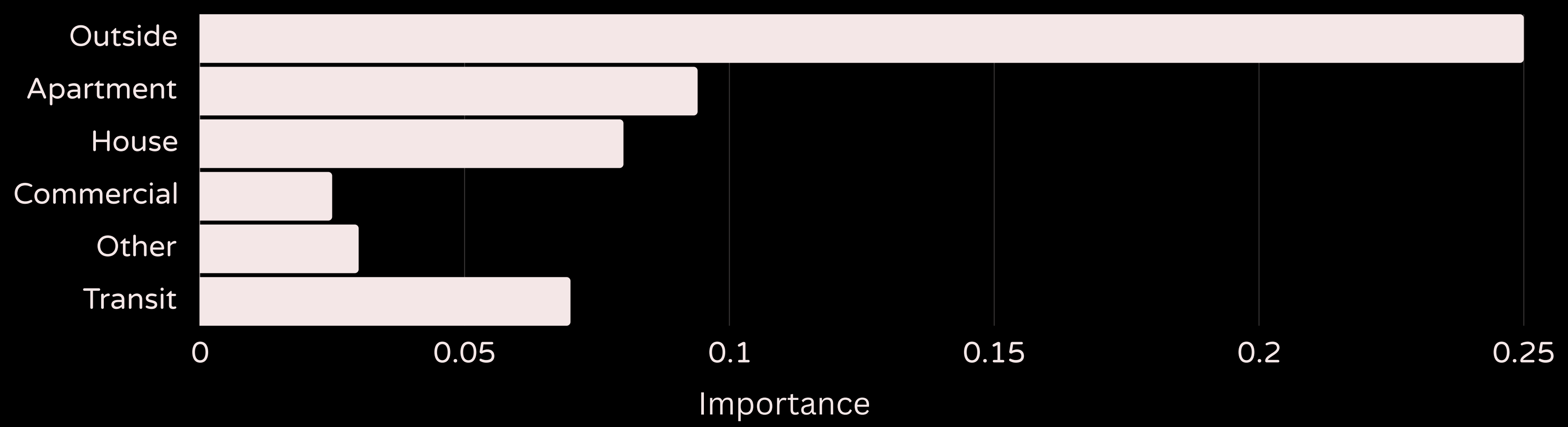
5



Distribution of Crime Based on Location

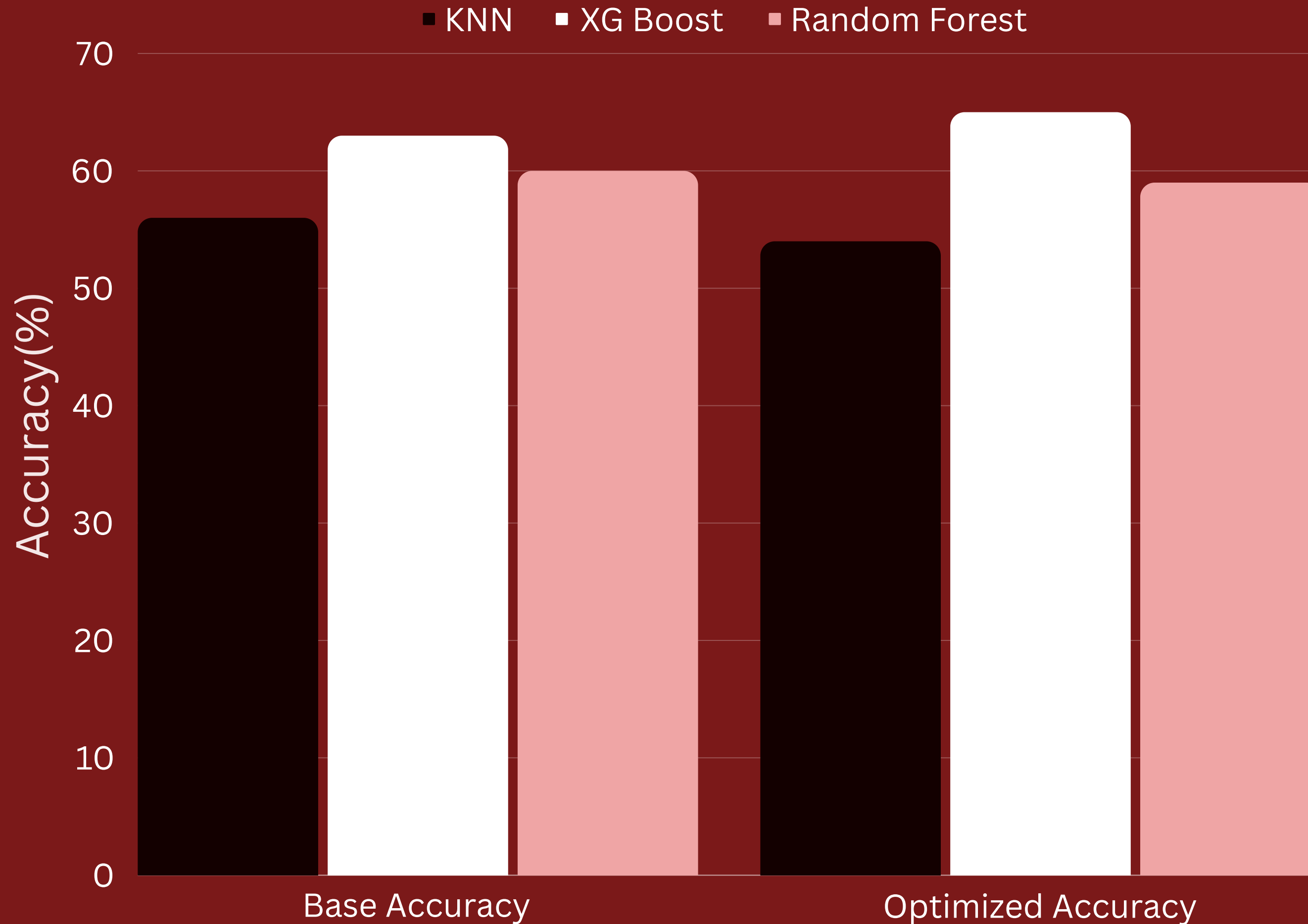


Feature Importance



Accuracy Comparison

7



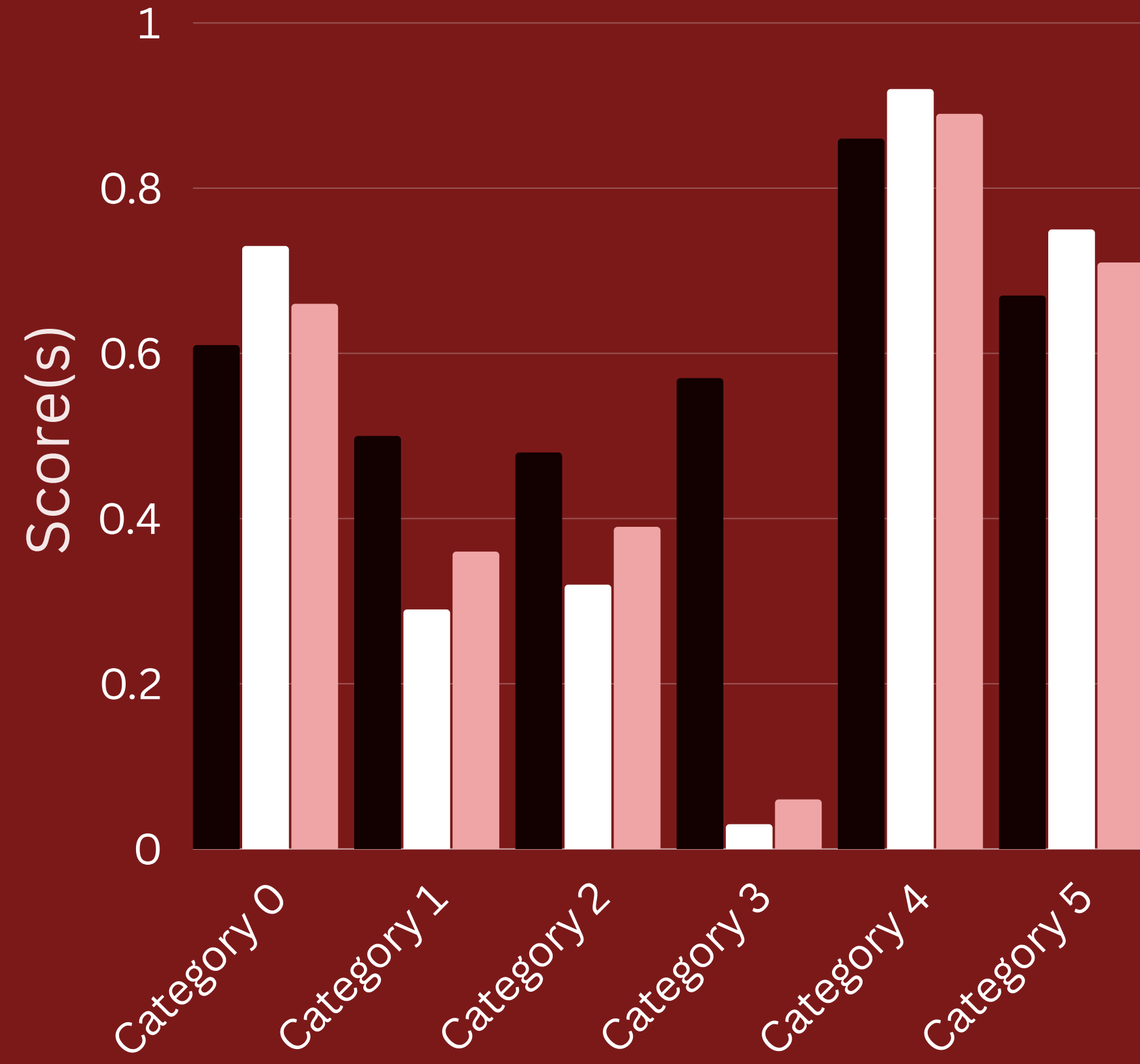
Classification Report Comparison

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VS

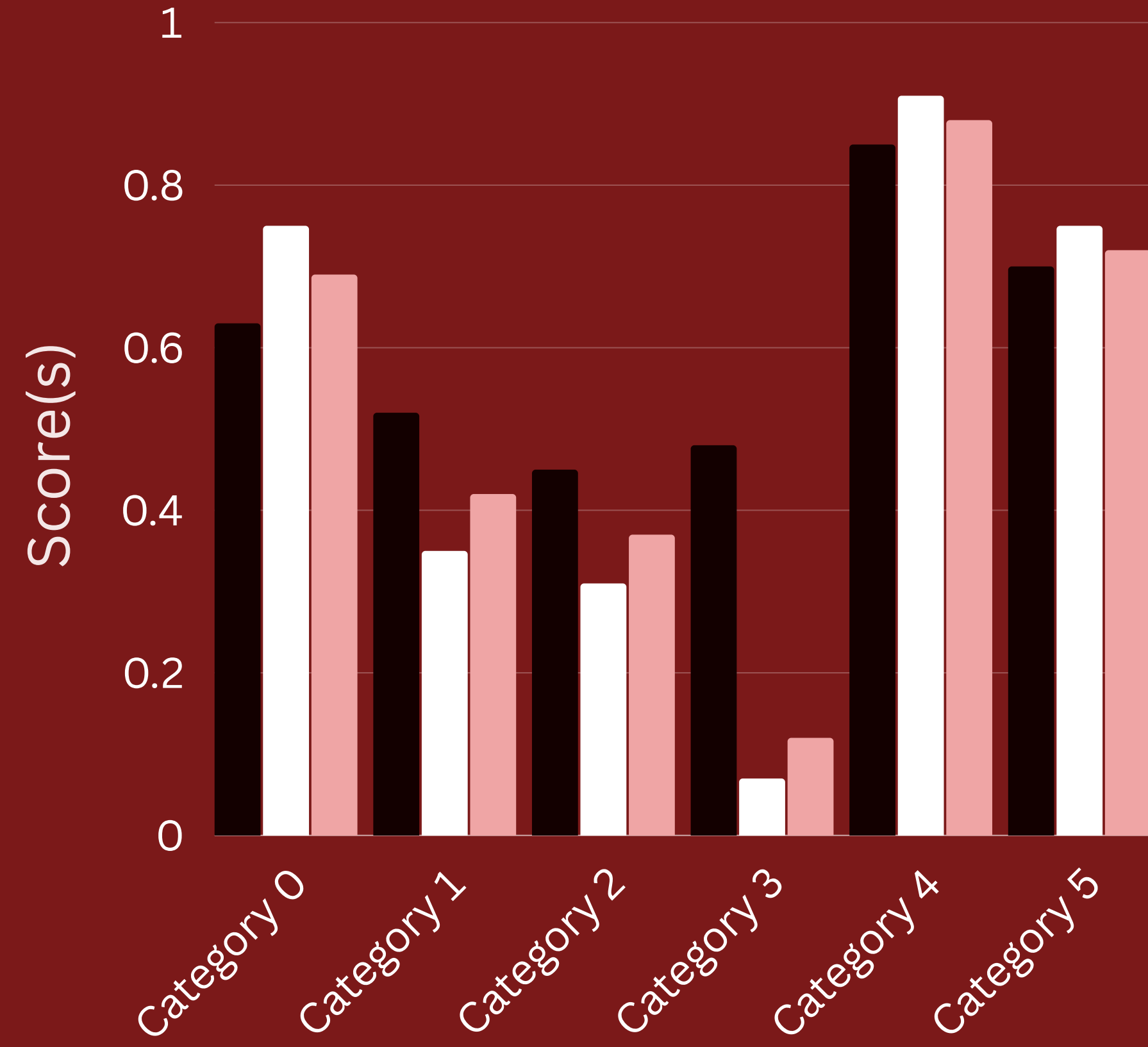
Base Scores

■ Precision ■ Recall ■ F1-Score



Optimized Scores

■ Precision ■ Recall ■ F1-Score



Thank You!

Questions?