

# A Machine Learning Approach to MLB Catcher Framing

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## Introduction

- ▶ “Catcher framing is the art of a catcher receiving a pitch in a way that makes it more likely for an umpire to call it a strike – whether that’s turning a borderline ball into a strike, or not losing a strike to a ball due to poor framing.” - MLB.com Glossary

## Motivation

- ▶ Baseball Catcher's can influence the call of a ball or strike on how they catch the ball
- ▶ Some catcher's are better than others at this skill
- ▶ Baseball teams are aware of this and are acquiring players good at this skill to win more games
- ▶ We want to quantify the best catcher's at framing for the 2021 season
- ▶ There are several factors that influence whether a pitch will be a strike or ball

## Data

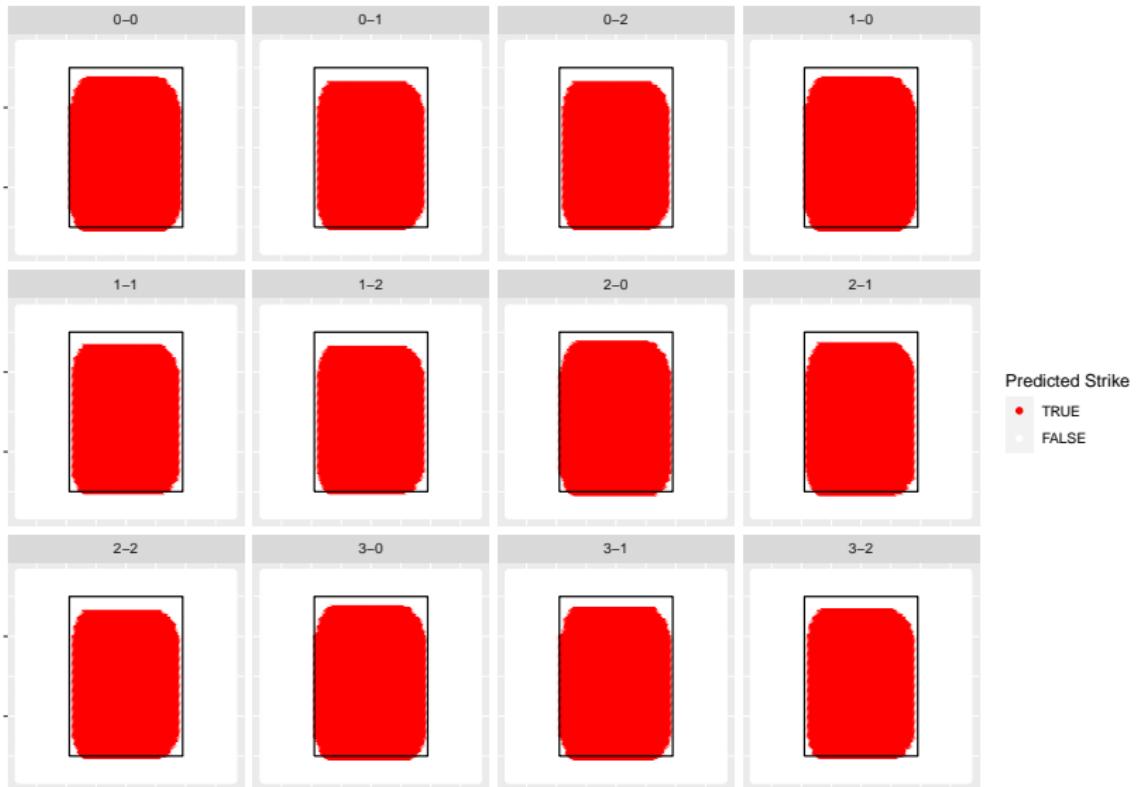
- ▶ 2021 pitch data scraped from Baseball Savant through baseballr package
- ▶ ~700,000 rows (each for a single pitch)
- ▶ Wanted to look at pitches that were not swung at by the batter (called strike or ball)
- ▶ ~350,000 rows remain

## Variables

- ▶ which variables used and why

# Example

## ► Strike Probability by Location and Count



# Slide with Plot

