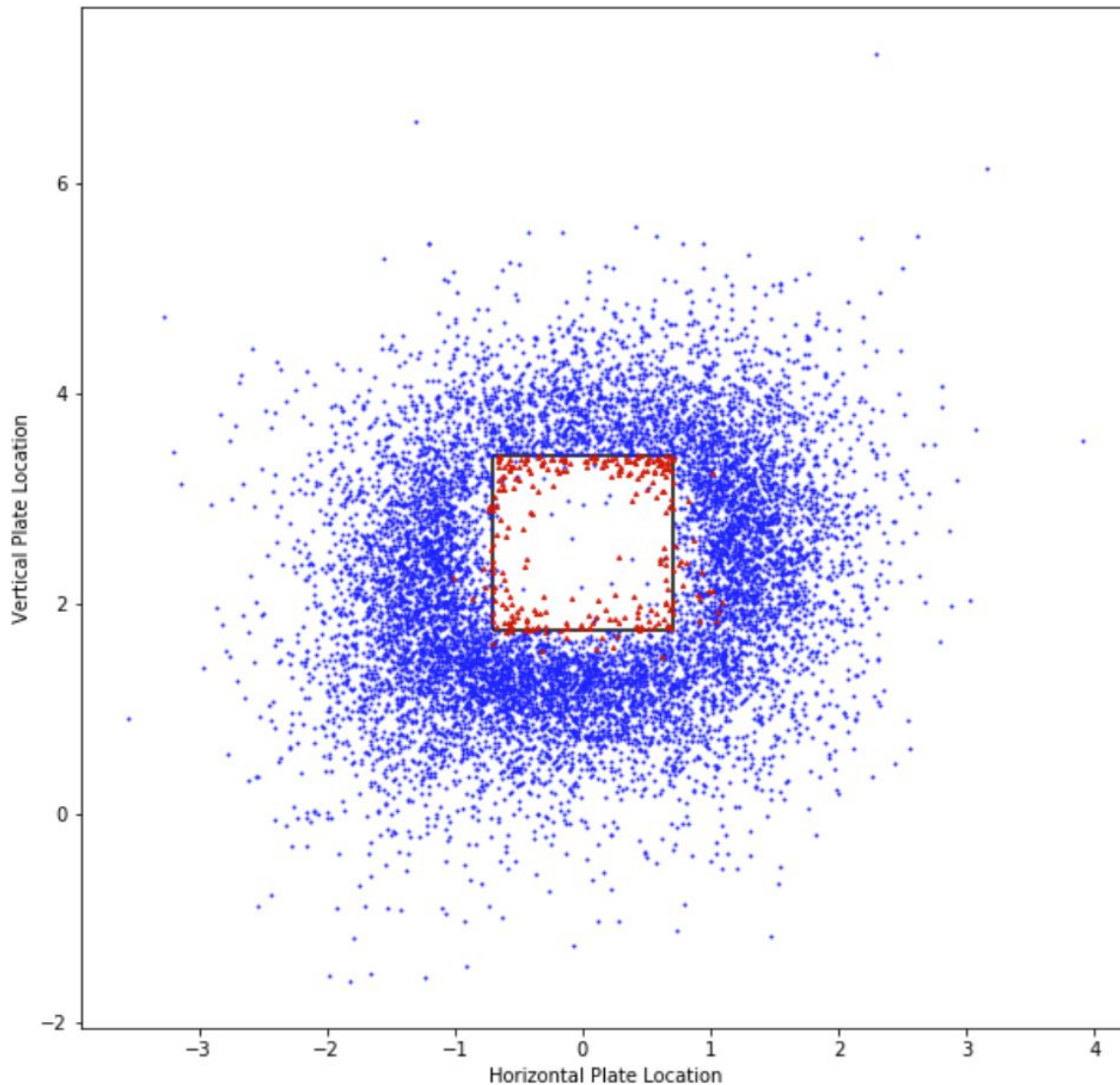
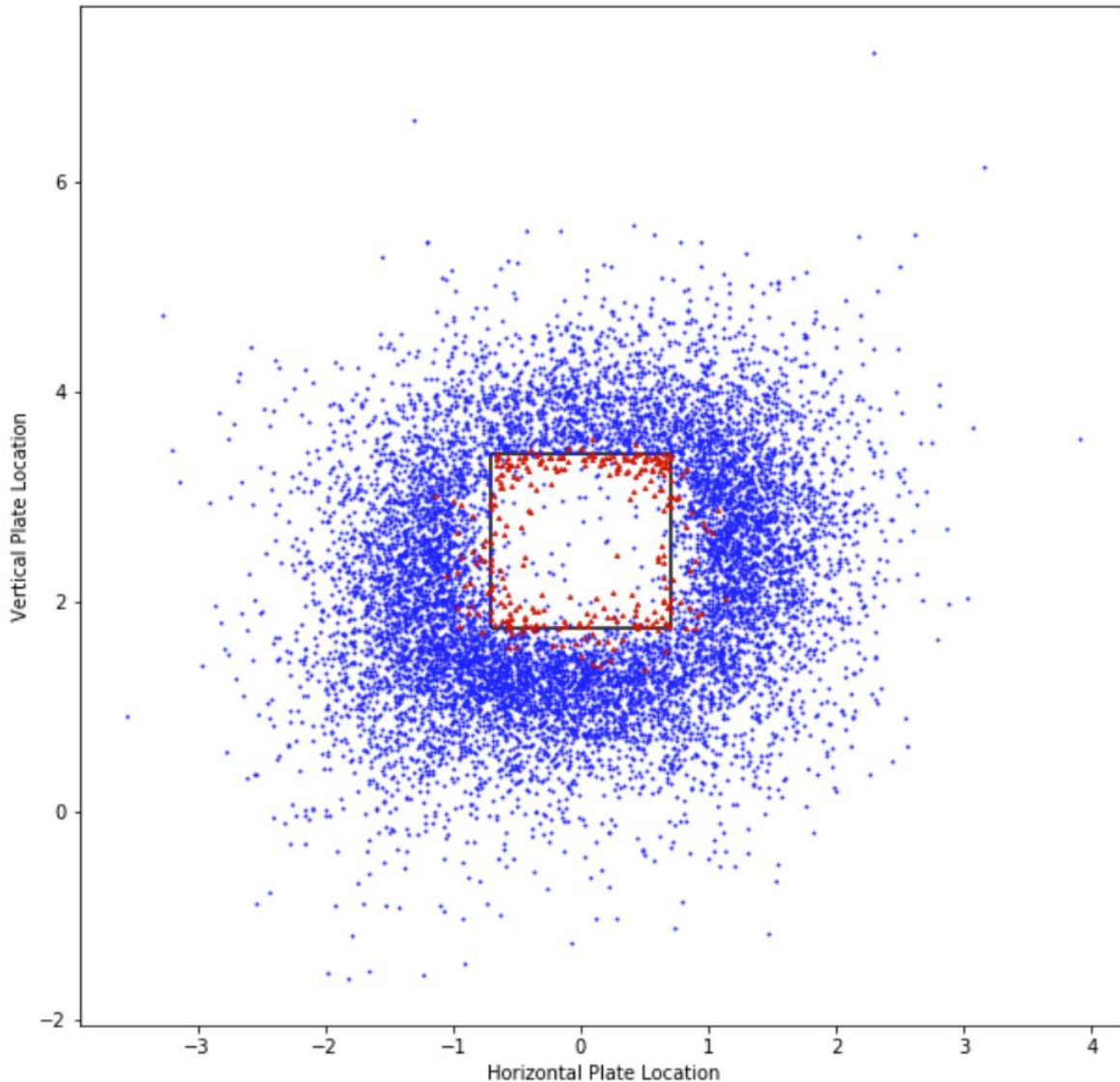


Claire Wichman

### Individual Deliverable #1



Above is a plot of 10,000 pitches thrown by left-handed pitchers. To retrieve this data, I queried all pitches thrown by left-handers where either a strike or ball was called. This does not include strikes swinging, which could skew my data. Blue dots represent correct calls and red triangles represent incorrect calls. The black square represents the average MLB strike zone: 8.5 inches to either side, and 1.74 feet above the ground and 3.41 feet above the ground. Of the 10,000 pitches represented, 2.66% were called incorrectly. I am suspicious of the couple pitches down the heart of the strike zone that were called incorrectly. If they represent actual events, I suspect that they were breaking balls with a lot of movement that could have fooled both the batter and the umpire. However, they could be a result of incorrect data or a bug in my code.



Above is a plot of 10,000 pitches thrown by right-handed pitchers. To retrieve this data, I queried all pitches thrown by right-handers where either a strike or ball was called, excluding swinging strikes. Visually, there appears to be more balls outside of the strike zone that were called strikes compared to the plot of left-handed pitches. This leads me to believe that umpires give a bigger strike zone to right handed pitchers, or that left-handed pitchers have more movement that is harder to read. 2.96% of these pitches were called incorrectly, which is slightly more than the selection of left-handed pitches. Again, there are a few balls down the heart of the strike zone called incorrectly, which raises my suspicions mentioned earlier.