

PLAYERUNKNOWN'S  
**BATTLEGROUNDS**

# The Road to a Chicken Dinner

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By Stephen Kim and Patrick Tran

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STATS 131



# “WINNER WINNER CHICKEN DINNER!”

- Quote presented to the player upon successfully winning a game





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# What is PUBG?

*(PUBG = PlayerUnknown's Battlegrounds)*



- Online “Battle Royale” Multiplayer Shooter
    - Maximum of 100 players in a single match
    - Player begins without weapons or equipment
      - **Objective:** Loot and survive until the end
    - Last Man (or Team) Standing wins!
  - Choose Fight or Flight
    - Actively seek others and eliminate them or hide and avoid attacking
      - Kills do not factor into overall leaderboard
    - Must constantly be on the move as the playable area shrinks
      - Players are not the only threat
      - Ensures matches end in a timely fashion
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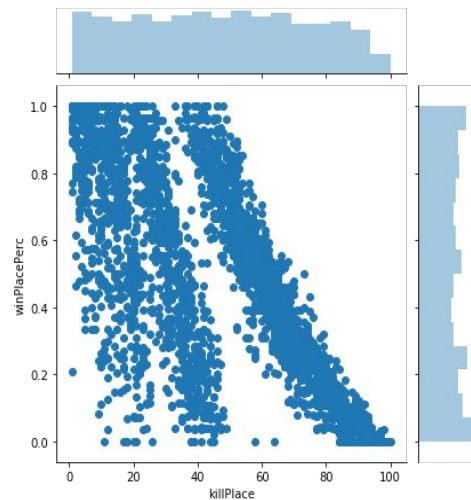
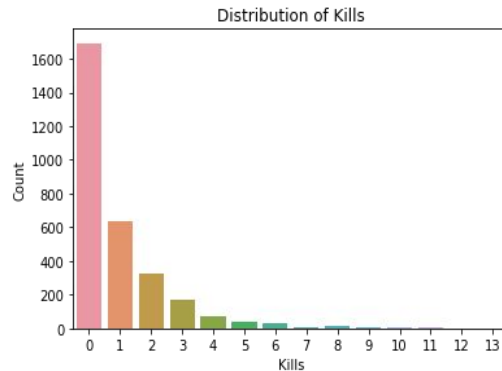
# The Dataset

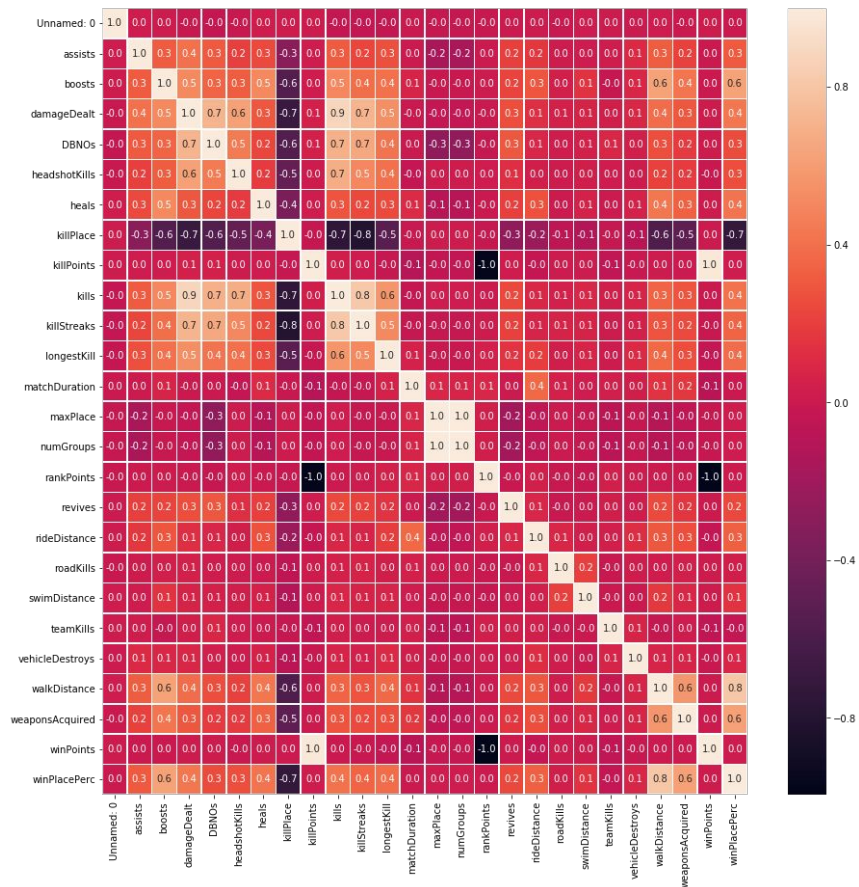
- Official in-game data provided by the PUBG Corporation
- Observations obtained from players upon individual match completions
- 29 different variables (4 Qualitative and 25 Quantitative)
  - Study mainly focuses on the quantitative variables such as number of kills and ranking
  - Majority of the qualitative variables involve unique IDs
    - Irrelevant to the model of the study
- Subset of 3000 randomly sampled observations (from Kaggle training dataset) used for analysis and modeling



# What's a *skilled* player?

- More Kills = More Skills (?)
  - Majority of players obtain zero kills in a match
- Does win placement necessarily define a skilled player?
  - Players can reach Top 10 by hiding
  - Number of kills provides a more objective analysis of a player excelling in all aspects of the game
  - Many variables correlated with Kill Placement
    - Kill Placement is most correlated for Winning Placement

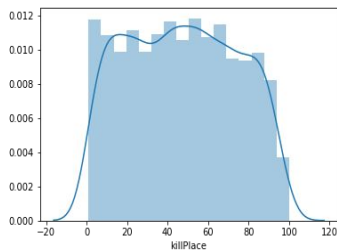
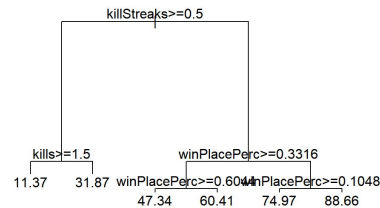




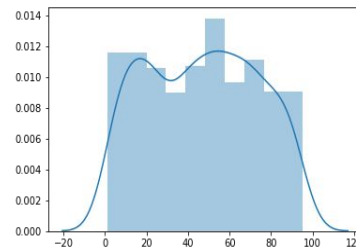


# Model and Output

- Random Forest Regression
  - 150 trees used with RSME of 4.392
- Target Variable: Kill Placement
- Only numerical variables used
- Predicted kill placements show similar uniform distribution to actual placements



Actual Values



Predicted Values