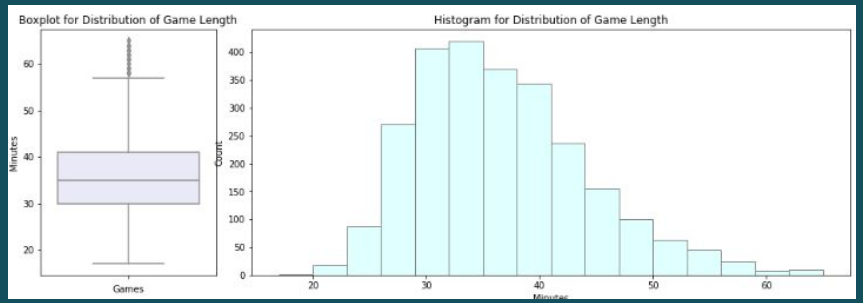

SIMPLE PYTHON ANALYSIS ON
LEAGUE OF LEGENDS

DATA USED IN THIS ANALYSIS

- Merge the general League of Legends 2017 data set with the Structures data
  - Have to get the minimum time for the first tower taken down
- Focus on 2017 Season games less than 65 minutes
- Variables for analysis:
  - Game length: minutes it took to finish a game
  - Time: when the first tower was taken down
  - Team: whether the blue or red team took down the tower

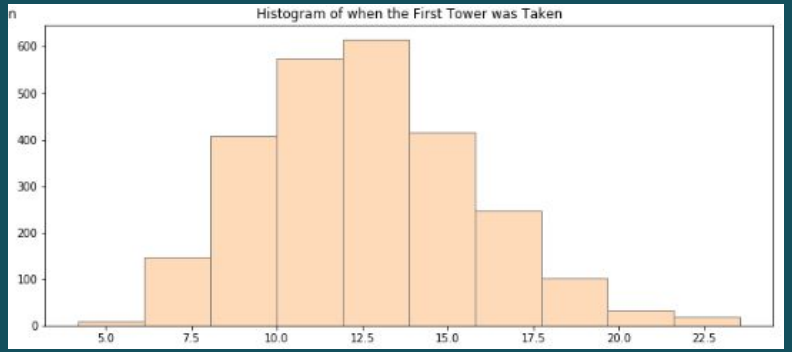
GAME LENGTH



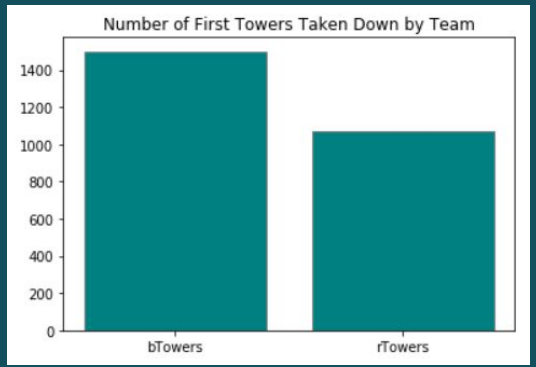
BLUE vs RED

Year	bResult	rResult
2017	1456	1117

FIRST TOWERS (TIME)



OF TOWERS TAKEN BY TEAM



RESEARCH QUESTION

- Can we accurately predict if the blue team won or lost based on when the first tower was taken down and which one it was?
  - Use Logistic Regression
- Variables:
  - Response: bResult
  - Features: Time and Team

Model

- Applied the model to the full data set first; had a 68.5% accuracy
- Coefficients

	Intercept	**Team[rTowers]**	**Time**
Output (Log-Odds)	0.5140865	-1.15471327	-0.01118849
Odds (Exponentiate)	1.672	0.21987	0.98887

- Confusion Matrix

	0	1
0	263	167
1	145	419

- 64% Lost/Lost
- 72% Won/Won

Model Evaluation

- Train, Test, Split
  - Test size = 30% of original dataset
  - Accuracy score = 68.6%
- Cross Validation
  - 10 fold
  - Mean accuracy = 68.52%
- Overall, our accuracy is about 68% which is pretty good!