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Conor Maley* (cmaley17@wooster.edu), 1189 Beall Ave, Wooster, OH 44691. *Evolving Monkeys into Hawks: Analyzing Optimal Drafting Techniques Used for Daily Fantasy Football using Mathematical Modeling and Machine Learning*. Preliminary report.

The Daily Fantasy Sports industry has recently skyrocketed. Led by powerhouses FanDuel and DraftKings, the industry is estimated to be worth over a billion dollars. The games themselves have been declared “skill games,” meaning there is an underlying strategy behind Daily Fantasy Sports. This anomaly can be seen simply by that fact that only a few top players typically win most of the cash prizes. In this project, we provide a deep exploration into the data science that lies behind choosing a team in Daily Fantasy Football. With team salary restrictions, Daily Fantasy Sports present an interesting optimization problem. Users must make difficult decisions on which players to play on a given week. We investigate these decisions using analytics and machine learning to both model and analyze past data. (Received September 20, 2016)