Team 14 Project Proposal Karim Alami, Philip DiGiorgio, Samuel Fritz, Brandon Harvey

Our goal is to build a prediction-based application for club level men's ultimate frisbee teams in order to provide fans with accurate results before games begin. Currently, fans of the sport have no access to a prediction app due to its low level of popularity in comparison with more mainstream sports. With our application, we plan to provide fans with accurate game predictions by using a machine learning algorithm, focusing on factors that influence the game the most. Namely, this will focus on weather conditions, with a large focus on wind speed, precipitation, and temperature. In the future, we would like to factor other statistics into the predictions, such as teams' records, in the aim of providing more accurate predictions.

Competitors exist that focus on the most popular sports such as football, basketball, and soccer, but they do not provide a platform for ultimate frisbee fans or factor external variables into their predictions. No official ultimate frisbee site currently provides any predictions of game outcomes; the only official site serves as a source for basic information on each team. By focusing our application on a less popular professional sport and using a different prediction algorithm, we will be set apart from our competitors.

Our main goal is to provide ultimate frisbee fans with accurate predictions of match results with a new prediction algorithm. To achieve this goal, we will develop a prediction algorithm that focuses primarily on external conditions affecting matches and secondarily on more typical factors such as teams' records. Data about teams can be gathered by scraping the site "play.usaultimate.org", and weather data can be obtained by using one of many available APIs. Completion of this goal will be reflected by the creation of an app that allows users to view predictions for their favorite ultimate frisbee teams. If we surpass our goal, we will expand our app to build an interactive platform that allows fans to get involved with the sport and potentially have a stake in the outcome, all with the prediction algorithm at the core.