

U.P.E (Ultimate Prediction Engine)

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Problem + Motivation

- No prediction app for ultimate frisbee like there are for other popular sports
- Ultimate frisbee prediction app for the AUDL (American Ultimate Disc League)
- Sport depends a lot on weather influences and using them to your advantage
 - Wind directly affects aerodynamics of disc, affecting the lift and drag to change where and how far it goes



Product Overview

- Web application built around a prediction engine for ultimate frisbee
 - Takes in weather factors that affect the game the most - wind speed, temperature, precipitation, etc.
 - Use team and player records to compare and build statistics for each team in different conditions
- Users are able to view customized predictions for matchups between teams and players



Users

- Our target users consist of fans of ultimate frisbee. (Can track and predict hypothetical 1-on-1 matchups in any setting)
- Along with this, team players and staff can also access the website to gain insight on forecasted statistics that our engine produced.



Competition

- Little to no known competitors in Ultimate Frisbee
- Major competitors for
 - NFL
 - NHL
 - NBA

From sportingnews.com

The screenshot shows the top navigation bar of the Sporting News website. The main menu includes NFL, NBA, MLB, NHL, SOCCER, BOXING, NCAA, GOLF, and F1. There are also links for Fantasy and Betting, and a language selector set to US (EN). Below the main menu is a sub-menu for the NFL section, with 'News' selected. The main content area displays a list of NFL games for the week of October 16th. Each game entry includes the team abbreviations, the game status (e.g., EVEN, -3.5 pts), the date and time, and the team logos.

Game	Time	Game	Time	Game	Time	Game	Time				
WAS vs CHI	Thu, 8:15p	MIN vs MIA	10/16, 1:00p	NYJ vs GB	10/16, 1:00p	SF vs ATL	10/16, 1:00p	BAL vs NYG	10/16, 1:00p	JAC vs IND	10/16, 1:00p

Implementation

- Machine Learning Algorithm using Neural Network
 - Weather
 - Team
 - Based on player statistics
 - Win/Loss Ratios
- Website Based Availability
- American Ultimate Disk League (AUDL) website data scraping
- Visual Crossing Weather API

Success

- Fully Functional Web application that allows users to view upcoming game predictions for the current season
- Accurate Game predictions
 - Weather Data
 - Temperature, Wind Speed, and Precipitation
 - Team vs. Team data
 - Individual Player Statistics
- Customized Game Predictions
 - Create your own team
 - Match them up against other teams under different weather conditions

Questions?