

Blue Yonder creates football forecasting algorithm for Euro 2016

SPOILER ALERT: Predictions based on algorithms and data science of who will win Euro 2016

Blue Yonder, the leading provider of cloud-based predictive applications for retail, has created a football forecasting algorithm to predict which team will win the UEFA European Championship this summer.

The machine learning algorithm was created by Prof. Dr. Michael Feindt, a particle physicist, ex-CERN scientist and founder of Blue Yonder. The algorithm has been fed the results from all recorded international games enabling the machine learning algorithm to learn general statements about the winning probability of a team that has won or lost their previous matches. The algorithm then predicted the probabilities of each team qualifying and through to predicting the winner of Euro 2016. Prof.

Dr Feindt explains: "The way the tournament is conducted is completely fixed in the first round, but there are 94 trillion possible ways the tournament could play out after this. We have therefore used the Monte Carlo* method to simulate 1 million complete tournaments according to the team to team game probabilities and the likelihood of a team winning, drawing or losing against a competing side.

It is not possible to predict with 100% certainty who will win this year's tournament, as previous shocks like Greece's victory over Portugal in Euro 2004, have shown that results can sometimes be totally unpredictable.

Blue Yonder have predicted the overall winner to be France, who will enjoy a home advantage throughout the tournament and have a 34.1 per cent probability of winning the competition sixteen years after the triumph of 2000. This is more than double their closest rival for the championship title, Spain, who only have a 13.4 per cent probability of winning the competition in comparison.

The results show that England team will get off to a strong start, with 56.7 per cent probability that they will finish top of their group and a 93.3 per cent probability of qualifying for the round of 16. Continuing their winning streak, the probability of England reaching the quarter finals is almost two thirds (62.7 per cent), while reaching the semifinals is 36.7 percent. However, the chances of reaching the final falls to 21.2 per cent, leaving England with only an 11 per cent chance of winning the competition for the first

time in history. Major sporting events, such as Euro 2016, provide a huge opportunity for retailers to boost sales with merchandise.

However, it is hard to predict whether your national team will go the whole distance and be crowned champions, or knocked out in the group stages. This makes it difficult for retailers to get their stock levels right. Blue Yonder's predictive applications help retailers with price and replenishment optimization, ensuring they have the right product in the right store, and at the right price. This helps increase revenue and margins, reduces waste, and improves overall customer satisfaction.

Other predictions made by Blue Yonder's football forecasting algorithm include:

- England finish top of their group: 56.7%
- England finish second in their group: 26.8%
- England finish third in their group: 12.2%
- England finish last in their group: 4.3%
- England reach the last 16: 93.3%
- England reach the quarterfinals: 62.7%
- England reach the semi-finals: 36.7%
- England reach the final: 21.2%
- England win Euro 2016: 11.0%

If England get to the quarterfinals, then these countries are most likely to be their opponents:

- France 20.3%
- Portugal 15.9%
- Belgium 12.2%
- Italia 10.2%

If England reach the semi-finals, these teams are most likely to be their opponents:

- Spain 19.8%
- Germany 12.6%
- France 10.6%
- Poland 7.7%

If England reach the final, then they are most likely to face:

- France 32.7%
- Spain 11.2%
- Germany 11.0%
- Russia 6.4%

The top 12 teams with the best chances to win the European Championship:

1. France: 34.1%
2. Spain: 13.4%
3. England: 11.0%
4. Germany: 9.8%
5. Belgium: 4.4%
6. Portugal: 3.8%
7. Poland: 3.2%
8. Russia: 3.0%
9. Croatia: 2.7%
10. Italy: 2.5%
11. Switzerland: 1.6%
12. Romania: 1.5%
- ...
24. Northern Ireland: 0.04%

Throughout the European tournament Prof. Dr Feindt will be recalculating the probabilities based on results from each game played.

About Blue Yonder

Blue Yonder is the leading provider of cloud-based predictive applications for retail. Every day, we deliver decisions to our customers that boost revenues, increase margins and enable rapid responses to changing market dynamics. Our replenishment and pricing solutions are driven by sophisticated machine learning algorithms, developed by one of the largest teams of PhD-level data scientists in retail. Founded in 2008 in Karlsruhe, Germany, by ex-CERN scientist Professor Michael Feindt, Blue Yonder now operates in both Europe and the United States. We are backed by leading private equity firm Warburg Pincus and the Otto Group and established the Data Science Academy, in 2014, to provide businesses with relevant data science know-how for retail. Blue Yonder has been awarded, among many others, the Gartner Cool Vendor Award 2015, the Experton Big Data Leader Award 2016 and the BT Retail Week Technology Award.

Blue Yonder. Best Decisions, Delivered Daily.