**Welcome to the Mistplay Data Science Challenge!**

Today you embark on one of perhaps the most daring adventures you will ever experience. A challenge not even the greatest warriors of modern history could have dreamed of accomplishing. And upon the completion of this challenge - if it does not destroy you first - you will rise a champion, and will move to the subsequent interview step for Mistplay. In this challenge, we will test every aspect of your data science and programming skills, and in order to succeed you must prove your agility and knowledge in a great number of varied fields.

**The first step - The Prediction Model**

You’ll be provided a CSV file with multiple X-columns and a single Y-column (‘y’). Your goal is to build a model that takes as input the X-values and outputs a predicted Y-value.

You can use any language, libraries and algorithms of your choice.

**The last step - Deploying model to “production”**

Once you’re satisfied with your model, you’ll export this model to run as a Node.js Express route. You’ll build a basic Node server with a single Express GET route: **/predict.** You can also use Python’s Flask framework to build your web app.

The /predict route is a REST API that uses the same parameter names as specified in the CSV file: “x1, x2, x3...xn”. The expected return format is a JSON object {prediction: VALUE}, where value is {0,1} (make this a binary classification problem!).

**Submission**

1. Host your source code on Github. We’ll be looking for code quality, training performance and readability - please comment where appropriate. Please comment your commits appropriately.
2. Please dockerize the final server/code so that we can run it locally and test against it with our validation set. We should be able to run a command like: ***docker run -d -p 3000:3000 mistplay-challenge***
3. Please send a first version of your dockerized code and source code both zipped within 4-hours after the challenge begins. This will allow us to verify how fast you can code.
4. Feel free to submit an optional second submission within 48-hours of the beginning of the challenge to show any improvements you can make with extra time.

And that is the challenge. With this I wish you the best of luck, and hope to see you soon once you have vanquished it.

**-Team Mistplay**