

# Titanic - Machine Learning from Disaster

Start here! Predict survival on the Titanic and get familiar with ML basics



## Titanic - Machine Learning from Disaster

[Submit Prediction](#)

### Overview

This competition runs indefinitely with a rolling leaderboard. [Learn more](#)

### Description

👋🚢 Ahoy, welcome to Kaggle! You're in the right place.

This is the legendary Titanic ML competition – the best, first challenge for you to dive into ML competitions and familiarize yourself with how the Kaggle platform works.

If you want to talk with other users about this competition, come join our Discord! We've got channels for competitions, job postings and career discussions, resources, and socializing with your fellow data scientists. Follow the link here: <https://discord.gg/kaggle>

The competition is simple: use machine learning to create a model that predicts which passengers survived the Titanic shipwreck.

Read on or watch the video below to explore more details. Once you're ready to start competing, click on the "Join Competition" button to create an account and gain access to the competition data. Then check out Alexis Cook's Titanic Tutorial that walks you through step by step how to make your first submission!

## The Challenge

The sinking of the Titanic is one of the most infamous shipwrecks in history.

On April 15, 1912, during her maiden voyage, the widely considered "unsinkable" RMS Titanic sank after colliding with an iceberg. Unfortunately, there weren't enough lifeboats for everyone onboard, resulting in the death of 1502 out of 2224 passengers and crew.

While there was some element of luck involved in surviving, it seems some groups of people were more likely to survive than others.

In this challenge, we ask you to build a predictive model that answers the question: "what sorts of people were more likely to survive?" using passenger data (ie name, age, gender, socio-economic class, etc).

## Recommended Tutorial

We highly recommend Alexis Cook's Titanic Tutorial that walks you through making your very first submission step by step and this starter notebook to get started.

## How Kaggle's Competitions Work

1. **Join the Competition** Read about the challenge description, accept the Competition Rules and gain access to the competition dataset.
2. **Get to Work** Download the data, build models on it locally or on Kaggle Notebooks (our no-setup, customizable Jupyter Notebooks environment with free GPUs) and generate a prediction file.
3. **Make a Submission** Upload your prediction as a submission on Kaggle and receive an accuracy score.
4. **Check the Leaderboard** See how your model ranks against other Kagglers on our leaderboard.
5. **Improve Your Score** Check out the discussion forum to find lots of tutorials and insights from other competitors.

### Kaggle Lingo Video

You may run into unfamiliar lingo as you dig into the Kaggle discussion forums and public notebooks. Check out Dr. Rachael Tatman's video on Kaggle Lingo to get up to speed!

## What Data Will I Use in This Competition?

In this competition, you'll gain access to two similar datasets that include passenger information like name, age, gender, socio-economic class, etc. One dataset is titled `train.csv` and the other is titled `test.csv`.

`Train.csv` will contain the details of a subset of the passengers on board (891 to be exact) and importantly, will reveal whether they survived or not, also known as the "ground truth".

The `test.csv` dataset contains similar information but does not disclose the "ground truth" for each passenger. It's your job to predict these outcomes.

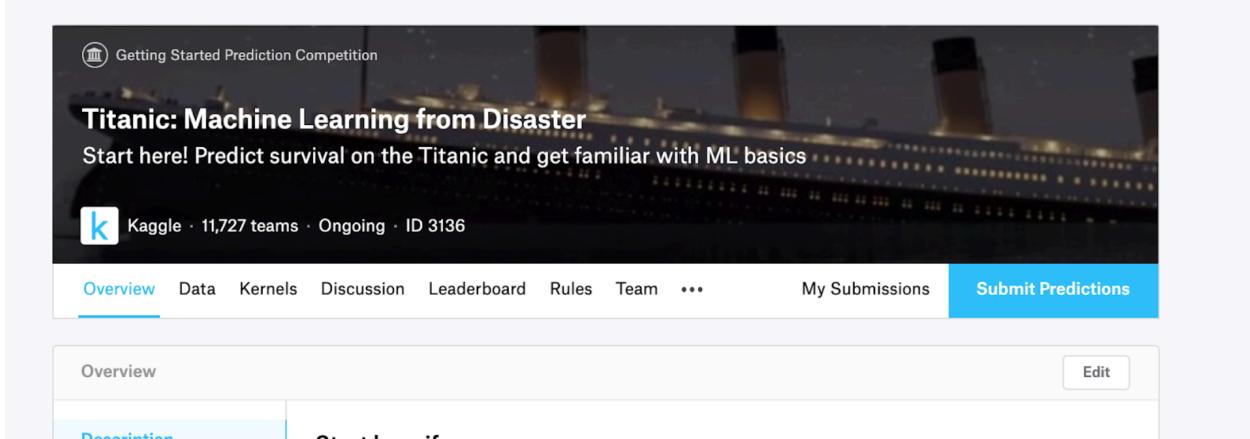
Using the patterns you find in the `train.csv` data, predict whether the other 418 passengers on board (found in `test.csv`) survived.

Check out the “Data” tab to explore the datasets even further. Once you feel you’ve created a competitive model, submit it to Kaggle to see where your model stands on our leaderboard against other Kagglers.

## How to Submit your Prediction to Kaggle

Once you’re ready to make a submission and get on the leaderboard:

1. Click on the “Submit Predictions” button



2. Upload a CSV file in the submission file format. You're able to submit 10 submissions a day.

You have 10 submissions remaining today. This resets 5 hours from now (00: 00 UTC).

**Step 1**  
Upload submission file



**File Format**  
Your submission should be in CSV format. You can upload this in a zip/gz/rar/7z archive, if you prefer.

**Number of Predictions**  
We expect the solution file to have 418 prediction rows. This file should have a header row. Please see sample submission file on the [data page](#).

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**Step 2**  
Describe submission



Briefly describe your submission

**Make Submission**

## Submission File Format:

You should submit a csv file with exactly 418 entries plus a header row. Your submission will show an error if you have extra columns (beyond `PassengerId` and `Survived`) or rows.

The file should have exactly 2 columns:

- `PassengerId` (sorted in any order)
- `Survived` (contains your binary predictions: 1 for survived, 0 for deceased)

**Got it! I'm ready to get started. Where do I get help if I need it?**

- For Competition Help: Titanic Discussion Forum

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## A Last Word on Kaggle Notebooks

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## Ready to Compete? Join the Competition [Here!](#)

## Evaluation

### Goal

It is your job to predict if a passenger survived the sinking of the Titanic or not.

For each in the test set, you must predict a 0 or 1 value for the variable.

### Metric

Your score is the percentage of passengers you correctly predict. This is known as accuracy.

## Submission File Format

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**PassengerId,Survived**

892,0

893,1

894,0

Etc.

You can download an example submission file (`gender_submission.csv`) on the Data page.

## Frequently Asked Questions

### What is a Getting Started competition?

Getting Started competitions were created by Kaggle data scientists for people who have little to no machine learning background. They are a great place to begin if you are new to data science or just finished a MOOC and want to get involved in Kaggle.

Getting Started competitions are a non-competitive way to get familiar with Kaggle's platform, learn basic machine learning concepts, and start meeting people in the community. They have no cash prize and are on a rolling timeline.

## **How do I create and manage a team?**

When you accept the competition rules, a team will be created for you. You can invite others to your team, accept a merger with another team, and update basic information like team name by going to the More > Team page.

We've heard from many Kagglers that teaming up is the best way to learn new skills AND have fun. If you don't have a teammate already, consider asking if anyone wants to team up in the discussion forum.

## **What are Notebooks?**

Kaggle Notebooks is a cloud computational environment that enables reproducible and collaborative analysis. Notebooks support scripts in Python and R, Jupyter Notebooks, and RMarkdown reports. You can visit the Notebooks tab to view all of the publicly shared code for the Titanic competition. For more on how to use Notebooks to learn data science, check out our Courses!

## **Why did my team disappear from the leaderboard?**

To keep with the spirit of getting-started competitions, we have implemented a two month rolling window on submissions. Once a submission is more than two months old, it will be invalidated and no longer count towards the leaderboard.

If your team has no submissions in the previous two months, the team will also drop from the leaderboard. This will keep the leaderboard at a manageable size, freshen it up, and prevent newcomers from getting lost in a sea of abandoned scores.

*"I worked so hard to get that score! Give it back!"* Read more about our decision to implement a rolling leaderboard [here](#).

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## Citation

Will Cukierski. Titanic - Machine Learning from Disaster. <https://kaggle.com/competitions/titanic>, 2012. Kaggle.

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The screenshot shows the Kaggle interface for the 'Titanic: Machine Learning from Disaster' competition. At the top, there's a banner with the competition title and a dark background image of the Titanic. Below the banner, the Kaggle logo and competition details are displayed: 'Kaggle · 11,727 teams · Ongoing · ID 3136'. A navigation bar includes links for Overview, Data, Kernels, Discussion, Leaderboard, Rules, Team, ..., My Submissions, and Submit Predictions. The 'Submit Predictions' button is highlighted with a blue background. Below the navigation bar, there are tabs for Overview, Description, and Sample. An 'Edit' button is located in the top right corner of the main content area.

2. Upload a CSV file in the submission file format. You're able to submit 10 submissions a day.

The screenshot shows the submission upload process. At the top, a message states "You have 10 submissions remaining today. This resets 5 hours from now (00:00 UTC)". The first step, "Step 1 Upload submission file", features a dashed box for file upload with an "Upload" icon. To the right, there are instructions for "File Format" (CSV, zip/gz/rar/7z) and "Number of Predictions" (418 rows). The second step, "Step 2 Describe submission", includes a rich text editor toolbar and a text input field with placeholder text "Briefly describe your submission". A "Make Submission" button is at the bottom.

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