Titanic Survivors Prediction

The sinking of the Titanic is one of the most tragically well-known shipwrecks in history.

On April 15, 1912, during its maiden voyage, the RMS Titanic—widely considered "unsinkable"—sank after colliding with an iceberg. Unfortunately, there were not enough lifeboats for everyone on board, resulting in the death of 1,502 of the 2,224 passengers and crew.

Although there was an element of chance in survival, it appears that certain groups of people were more likely to survive than others.

The objective is to build a predictive model that answers the question: "What kinds of people were more likely to survive?" using passenger data (such as name, age, sex, socio-economic class, etc.).

To do this, we will proceed in three steps:

1. A visual and quantitative analysis of the data (pairplot, correlation matrix, individual counts, 2D and 3D scatter plots, etc.).
2. Investigating whether some missing data can be filled in.
3. Implementing a neural network model, including scoring and model validation (using various scoring metrics and validation methods such as train-test split or k-fold cross-validation).

This problem is presented as a Kaggle challenge with a dataset in which the goal is to predict whether each individual survived.

At the end of the prediction process, submit your results on the Kaggle platform and obtain your score.

Source: https://www.kaggle.com/c/titanic