

## Feature importance with included context and text

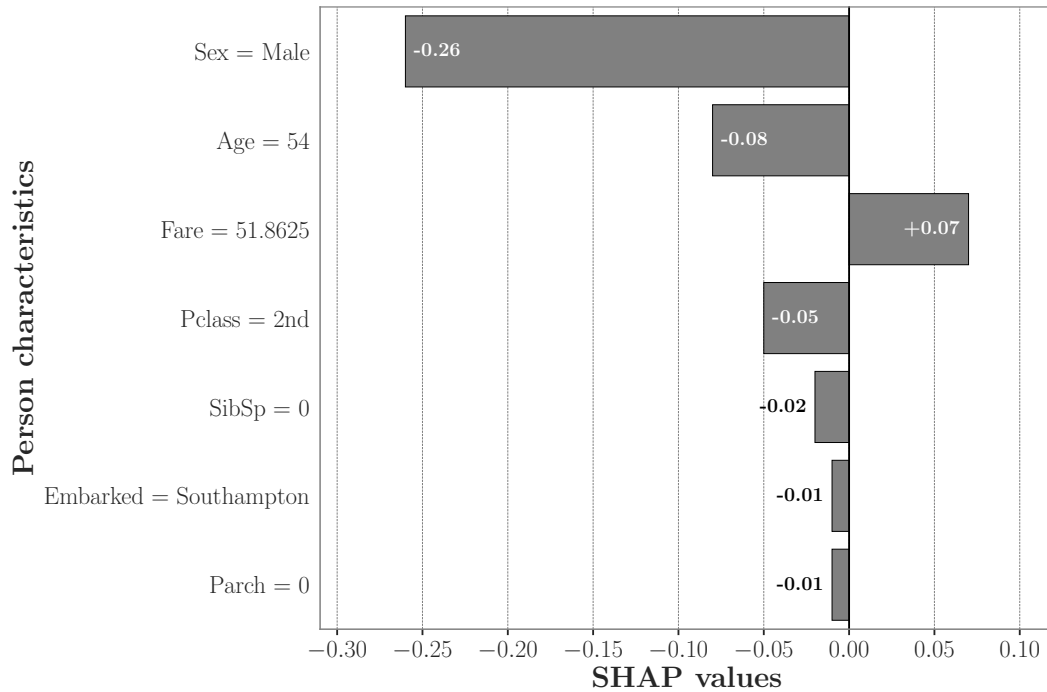
### Description of the method

**Feature importance** method assigns a score to each feature. Features with a higher absolute score are considered more important in predicting individual cases. The sign of the score indicates whether the feature value contributes to or argues against the prediction. The SHAP method is one of the methods of local feature importance.

**The scores are visualized relative to the average prediction, which is 0.4.**

The final prediction is equal to the sum of the average prediction and the influence of all features.

**Predicted probability of Survived is 0.04.**



**Textual explanation:** The initial prediction value equals average prediction 0.4. The feature that influences the final prediction the most for this example is **Sex** with an importance of **-0.26**, which changes the initial value to **0.14**. The second most important feature for this example is **Age** with a value of **-0.08**. Now, the prediction amounts to **0.06**. The third most important feature is **Fare** with an importance of **0.07**. This changes the prediction to **0.13**. Other features together contribute **-0.09**. The final prediction is **0.04**. Because the prediction is **less** than 0.5, the model predicts that the **passenger has not Survived**. The model is **confident** in its prediction, as the probability that the person has not Survived is **close to 1**.

### Domain context:

- **Sex:** The individual is female. Females had a higher survival rate.
- **Age:** The individual is older. Older passengers had a lower survival rate.
- **Fare:** The fare is lower, indicating a lower class which had a lower survival rate.