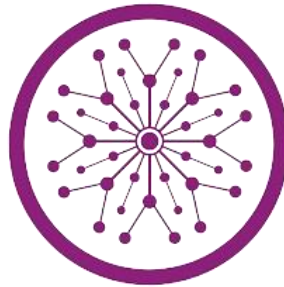


Programming for AI

Lab

Task 2



The Superior University

Faculty of Computer Science & Information

Technology

2023-2027

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Kaggle Competition: Spaceship Titanic - Documentation

Introduction

This Python script is designed to preprocess data and train a machine learning model for the Kaggle competition "Spaceship Titanic." The goal of the competition is to predict whether a passenger was transported to another dimension based on various features.

Dependencies

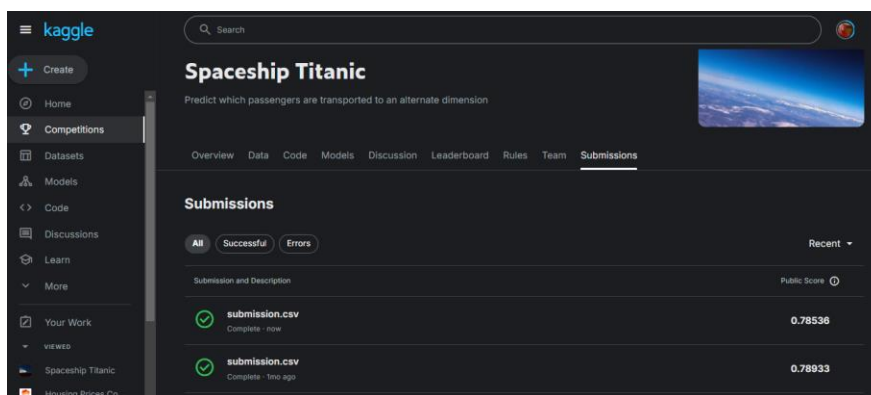
The script requires the following libraries:

- pandas for data manipulation
- sklearn.preprocessing.LabelEncoder for encoding categorical features
- sklearn.impute.SimpleImputer for handling missing values
- sklearn.ensemble.RandomForestClassifier for training the machine learning model

Steps in script:

1. Importing Libraries
2. Loading Dataset
3. Dropping unnecessary columns
4. Encoding Categorical features
5. Handling Null Values
6. Defining Features and Target
7. Model Training
8. Making Predictions
9. Creating a Submission File

Accuracy:



Spaceship Titanic	
Predict which passengers are transported to an alternate dimension	
Overview Data Code Models Discussion Leaderboard Rules Team Submissions	
Submissions	
All Successful Errors Recent	
Submission and Description	
Public Score	
✓ submission.csv Complete · now	0.78538
✓ submission.csv Complete · 1mo ago	0.78933