

## Citation Report

### Libraries/Frameworks Used:

#### 1. Pandas

- Description: Used for data manipulation and analysis.

Citation:

Reback, J., et al. (2020). pandas-dev/pandas: Pandas (Version 1.1.3). Zenodo.

<http://doi.org/10.5281/zenodo.3509134>

#### 2. Scikit-learn

- Description: A machine learning library used for preprocessing, model training, and evaluation.
- Modules:
  - IterativeImputer
  - train\_test\_split
  - LabelEncoder, StandardScaler
  - accuracy\_score, precision\_score, recall\_score, f1\_score, roc\_auc\_score, confusion\_matrix, log\_loss, balanced\_accuracy\_score
  - Models: LogisticRegression, RandomForestClassifier, SVC, MLPClassifier, DecisionTreeClassifier

Citation:

Pedregosa, F., et al. (2011). Scikit-learn: Machine Learning in Python. Journal of Machine Learning Research, 12, 2825–2830.

#### 3. CatBoost

- Description: Gradient boosting on decision trees used for classification tasks.

Citation:

Prokhorenkova, L., et al. (2018). CatBoost: unbiased boosting with categorical features. arXiv preprint arXiv:1706.09516.

#### 4. XGBoost

- Description: Used for gradient boosting classification.

Citation:

Chen, T., & Guestrin, C. (2016). XGBoost: A scalable tree boosting system. In Proceedings of the 22nd acm sigkdd international conference on knowledge discovery and data mining (pp. 785-794).

## 5. Joblib

- Description: Used for saving and loading models.

Citation:

Joblib developers. (2020). Joblib: running Python functions as pipeline jobs.

<https://joblib.readthedocs.io>

## 6. Matplotlib

- Description: Library used for creating visualisations.

Citation:

Hunter, J. D. (2007). Matplotlib: A 2D graphics environment. Computing in Science & Engineering, 9(3), 90-95.

## 7. Seaborn

- Description: Statistical data visualisation built on top of Matplotlib.

Citation:

Waskom, M. (2021). seaborn: statistical data visualisation. Journal of Open Source Software, 6(60), 3021.

## Plagiarism Declaration:

This work is original and does not contain any plagiarised content. All sources, libraries, and tools used in this project have been properly credited.

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