

Machine Learning Project 1
Data: Feature extraction, and visualization

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Group 94

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Table 1: Group members.

Task	Vincent	Diego	Albert
Section 1	30%	30%	40%
Section 2	40%	30%	30%
Section 3	30%	40%	30%
Section 4	30%	30%	40%
L ^A T _E X	80%	10%	10%

Table 2: Contributions & responsibilities table.

Introduction

The objective of this report is to apply the methods that were discussed during the first section of the course *Machine Learning* [1] to a chosen dataset. The aim is to get a basic understanding of the data prior to the further analysis (project report 2).

The particular dataset that is being investigated is the *Glass Identification* dataset from 1987 by B. German [2].

Table 1 lists our full names and student numbers, while Table 2 shows an overview of the contribution of each team member.

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1 The *Glass Identification* dataset

[TODO: The introduction to the data set.]

2 A close look at the different attributes

[TODO: Detailed explanation of the attributes of the data.]

3 Descriptive analysis of the dataset

[TODO: ...]

3.1 Extreme values and outliers

[TODO: ...]

3.2 Distribution of the attributes

[TODO: ...]

3.3 Correlation between attributes

[TODO: ...]

4 Principal Component Analysis

[TODO: ...]

Summary

[TODO: A short summary of what we discussed in the whole paper.]

References

- [1] Tue Herlau, Mikkel N. Schmidt, and Morten Mørup. *Introduction to Machine Learning and Data Mining*. Technical University of Denmark (DTU), Lyngby, Denmark, 2023. Lecture notes, Fall 2023, version 1.0. This document may not be redistributed. All rights belong to the authors and DTU.
- [2] B. German. Glass Identification. UCI Machine Learning Repository, 1987. DOI: <https://doi.org/10.24432/C5WW2P>.