Technical Report for Assignment 4

**Name: Email:**

Statement:

For this assignment's preparation, the author(s) did not use any generative AI tools.

For this assignment's preparation, the author(s) have utilized [Generative AI Tool Name], a language model created by [Generative AI Tool Provider]. Within this assignment, the [Generative AI Tool Name] was used for purposes such as [e.g., brainstorming, grammatical correction, writing paraphrasing, citation, specific sections of the assignment].”

1. Introduction

2. Dataset Selection & Preprocessing

2.1 Dataset Description

2.2 Preprocessing Techniques

3. AutoML Implementation

3.1 AutoML Tool Selection

3.2 Model Training and Selection

3.3 Performance Evaluation

4. Comparison with Traditional Methods (Optional)

4.1 Traditional Machine Learning Pipeline

4.2 Comparative Analysis

5. Analysis

5.1 Benefits and Limitations of AutoML

5.2 Reflection on Model Choices and Hyperparameters

6. Lessons Learned

7. References