Principles of Artificial Intelligence
Coursework

Author

Link to github:

- The report must not exceed **four pages**. You may decide how to balance the content between the two exercises (e.g., two pages for each, etc.).
- The report **must not contain code**, as the code will be uploaded to GitHub.
- Given the page limit, you should aim to be concise and avoid unnecessary verbosity (go straight to the point).
- Further comment can be added inside the code.

Follow these guidelines to structure your report:

- **Introduction**

  - Provide an overview of the data, including visualizations.
  - Highlight the expected precision of the model's predictions.
  - Discuss potential challenges the model may encounter.
2. **Methods**
   - Describe the methods used for both exercises.
   - **Linear Regression:**
     - Explain the differences between Batch Gradient Descent and Stochastic Gradient Descent in this specific case.
     - Justify which method is more suitable.
   - **Support Vector Machines (SVM):**
     - Analyse which kernel would be most appropriate for this scenario.
     - Provide reasoning for your choice.
3. **Model Performance and Comparison**
   - Compare the performance of the models used.
   - Discuss their strengths and weaknesses based on the results.