# Applied Machine Learning

# Disease Symptom Prediction

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#### Abstract

The abstract for your project goes here. The length of the abstract should be about 200 words. Tips for writing a good abstract can be found at https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3136027/.

Link to GitHub repository containing the dataset and all code developed for this project:

Applied Machine Learning - Disease Symptom Prevention (GitHub)

#### 1. Introduction

- Introduce Machine Learning and its applications in healthcare.
- Introduce the dataset and its relevance to the project + explain dataset with visuals
- Introduce the main goal of the project.
- Introduce the structure of the report.

[1]

#### 2. Related Work

• Don't know if we need that section, any ideas?

Method	Accuracy
Method 1	$70 \pm 3 \%$
Method 2	$76\pm3~\%$

Table 1: This is an example of a table.

# 3. Proposed Method

- Describe the transformations to the dataset you are using. One-Hot Encoding. Also trying other transformations (balancing)?
- Describe the methods you are using (DT, RF, SVM, LR, NN). You can use a table to summarize the methods.
- Describe the evaluation metrics you are using (acc, confusion, ROC). You can use a table to summarize the metrics.

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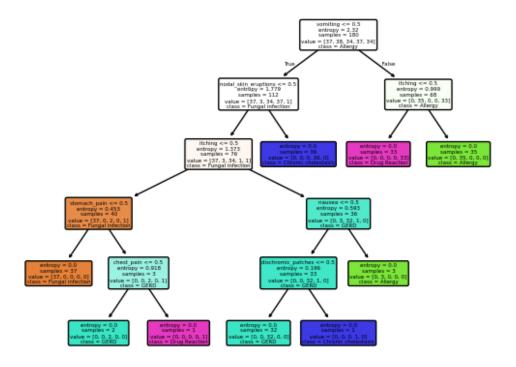


Figure 1: Example illustrating how to get BibTeX references from Google Scholar.

#### 4. Experiments

- Describe Binary Classification experiments. Modelsetups and hyperparameter tuning (gridSearch)
- Describe Multi-class Classification on subset, which parameters are optimized. show parameter tuning? (gridSearch)
- Describe Multi-class Classification on full dataset, which parameters are optimized. show parameter tuning? (gridSearch)
- More Experiments?
- 4.1. Binary Classification
- 4.2. Multi-class Classification

## 5. Results and Discussion

- Describe the results of the experiments. You can use tables and figures to summarize the results.
- Discuss the results. What do they mean? How do they compare to other methods? What are the limitations?

#### 6. Conclusions

- Summarize the main findings of the project.
- Discuss the implications of the findings. Is this suitable for real-world applications?
- Discuss the limitations of the project and future work.

# 7. Acknowledgements

## 8. Contributions

Describe the contributions of each team member who worked on this project.

## References

[1] A. Peimankar, S. J. Weddell, T. Jalal, A. C. Lapthorn, Evolutionary multi-objective fault diagnosis of power transformers, Swarm and Evolutionary Computation 36 (2017) 62–75.