ECSE 551 Mini Project 1

Isabel Lougheed, 260989364 **Mathieu Mailhot,** **Frank-Lucas Pantazis,**

Abstract

This project involves implementing a logistic regression linear classifier from scratch. This report presents the results of the logistic regression classifier model when performed on two datasets, a Chronic Kidney Disease (CKD) dataset and a battery dataset. INCLUDE IMPORTANT FINDINGS.

1 Introduction

2 Datasets

The first dataset used is a CKD dataset that is comprised of 28 numerical features which each represent a medical measurement of a patient. There is one target variable indicating whether the patient was diagnosed with CKD ('CKD') or not diagnosed with CKD ('Normal'). WRITE MORE ABOUT OUR FINDINGS ABOUT THE DATASET.

The second dataset used in this project is a battery dataset comprised of 32 real-valued features which represent specific battery attributes. There is a target variable to classify whether the battery is normal ('Normal') or defective ('Defective'). WRITE MORE ABOUT OUR FINDINGS ABOUT THE DATASET.

3 Results

4 Discussion and Conclusion

5 Statement of Contributions

6 Appendix

References

References follow the acknowledgments. Use unnumbered first-level heading for the references. Any choice of citation style is acceptable as long as you are consistent. It is permissible to reduce the font size to `small` (9 point) when listing the references. **Note that the Reference section does not count towards the eight pages of content that are allowed.**

[1] Alexander, J.A. & Mozer, M.C. (1995) Template-based algorithms for connectionist rule extraction. In G. Tesauro, D.S. Touretzky and T.K. Leen (eds.), *Advances in Neural Information Processing Systems 7*, pp. 609–616. Cambridge, MA: MIT Press.

[2] Bower, J.M. & Beeman, D. (1995) *The Book of GENESIS: Exploring Realistic Neural Models with the GEneral NEural SImulation System.* New York: TELOS/Springer–Verlag.

[3] Hasselmo, M.E., Schnell, E. & Barkai, E. (1995) Dynamics of learning and recall at excitatory recurrent synapses and cholinergic modulation in rat hippocampal region CA3. *Journal of Neuroscience* **15**(7):5249-5262.