22nd Annual International RAPDASA-RobMech-PRASA Conference, CSIR International Convention centre, Pretoria, South Africa, 3-5 November 2021

Development of a graphical user interface as a learning tool for artificial intelligence

1 Habib M. Hussien School of Electrical and Computer Engineering, Addis Ababa Institute of Technology (AAiT), AAU Addis Ababa, Ethiopia <u>habib.mohammed@aait.edu.et</u>

- 2 Konstantinos Katzis Department of Computer Science and Engineering. School of Sciences, 6 Diogenes St. Engomi 1516 Nicosia, Cyprus <u>K.Katzis@euc.ac.cy</u>
- 3 Luzango P. Mfupe CSIR, NGEI, Building 43C, Office No 245, Scientia Campus, Brummeria, Pretoria 0001, South Africa <u>Lmfupe@csir.co.za</u>
- 4 Ephrem T. School of Electrical and Computer Engineering, Addis Ababa Institute of Technology (AAiT), AAU, Addis Ababa, Ethiopia <u>ephrem.teshale@aait.edu.e</u>

https://ieeexplore.ieee.org/document/9570928

Abstract

This study developed a Graphical User Interface (GUI) aimed at teaching the concepts of Machine Learning (ML) algorithms which form the backbone of Artificial Intelligence (AI). This is done by means of tutorial videos and allowing the student to interact with example datasets through a dashboard within the GUI before completing an assessment. This GUI is referred to as a practical station and is one of ten other Industry 4.0 technology practical stations within the MerSETA funded CSIR Learning Factory. The GUI provides an interactive learning experience to introduce the user to three machine learning concepts.