Advancing Healthcare Resource Prediction: An Ensemble Deep Learning Approach for Ventilator Demand Forecasting

Michael Ajao-olarinoye

Abstract—This document describes the most common article elements and how to use the IEEEtran class with LaTeX to produce files that are suitable for submission to the IEEE. IEEEtran can produce conference, journal, and technical note (correspondence) papers with a suitable choice of class options.

Index Terms—Article submission, IEEE, IEEEtran, journal, LaTeX, paper, template, typesetting.

I. INTRODUCTION

THIS introduce your topic and the purpose of your paper.

II. LITERATURE REVIEW

This section should contain a review of the literature relevant to your topic. You should cite the relevant literature in this section. For example, [**ajao2020**].

III. METHODOLOGY

This section should contain a description of the methodology used in your work. You should also include the mathematical formulation of your model in this section. For example, the mathematical formulation of the model in [**ajao2020**] is given by equation 1.

$$
\begin{aligned}
\min_{\mathbf{w}} \quad & \frac{1}{2}\mathbf{w}^T\mathbf{w} + C\sum_{i=1}^{n}\xi_i \\
\text{s.t.} \quad & y_i(\mathbf{w}^T\mathbf{x}_i + b) \geq 1 - \xi_i, \quad i = 1,\ldots,n \\
& \xi_i \geq 0, \quad i = 1,\ldots,n
\end{aligned}
\tag{1}
$$

IV. DEEP LEARNING MODEL DEVELOPMENT

This section should contain a description of the deep learning model developed in your work. You should also include the mathematical formulation of your model in this section. For example, the mathematical formulation of the model in [**ajao2020**] is given by equation 2.

$$
\begin{aligned}
\min_{\mathbf{w}} \quad & \frac{1}{2}\mathbf{w}^T\mathbf{w} + C\sum_{i=1}^{n}\xi_i \\
\text{s.t.} \quad & y_i(\mathbf{w}^T\mathbf{x}_i + b) \geq 1 - \xi_i, \quad i = 1,\ldots,n \\
& \xi_i \geq 0, \quad i = 1,\ldots,n
\end{aligned}
\tag{2}
$$

V. RESULTS AND DISCUSSION

This section should contain the results of your work. You should also discuss the results in this section. For example, the results of the model in [**ajao2020**] are shown in figure **??**.

VI. CONCLUSION