Unveiling the PageRank Algorithm: Principles, Performance, and Enhancements

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Abstract—This is the abstract area. We should write a very nb abstract here.

Index Terms—KeyWord1, KeyWord2, KeyWord3

I INTRODUCTION

This is the Introduction area. We should write a very nb introduction here.

II THE 2ND SECTION

This is a simple section.

A. The 2nd Section 1st Subsection

This is a simple subsection. This is a simple subsection.

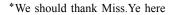




Fig. 1. This is a figure.

B. The 2nd Section 2nd Subsection
This is a simple subsection too.

III THE 3RD SECTION

This is a simple section.

A. The 3rd Section 1st Subsection

This is a simple subsection. We can make a citation here. [?]

Fig. ?? is a figure. You can see it at the top of the page.

B. The 3rd Section 2nd Subsection

This is a simple subsection too.

IV THE 4TH SECTION

This is a simple section.

2

A. The 4th Section 1st Subsection

This is a simple subsection.

This is an equation:

$$e^{\pi i} + 1 = 0 \tag{1}$$

You can ref it by see(??).

B. The 4th Section 2nd Subsection

This is a simple subsection too.

This is a algorithm:

Algorithm 1 Weighted Tanimoto ELM.

TRAIN(XT)

$$\begin{split} & \textbf{select randomly} \ W \subset \mathbf{X} \\ & N_{\mathbf{t}} \leftarrow |\{i: \mathbf{t}_i = \mathbf{t}\}| \quad \textbf{for} \quad \mathbf{t} = -1, +1 \\ & B_i \leftarrow \sqrt{\max(N_{-1}, N_{+1})/N_{\mathbf{t}_i}} \quad \textbf{for} \quad i = 1, ..., N \\ & \hat{\mathbf{H}} \leftarrow B \cdot (\mathbf{X}^T \mathbf{W})/(\mathbb{1} \mathbf{X} + \mathbb{1} \mathbf{W} - \mathbf{X}^T \mathbf{W}) \\ & \beta \leftarrow \left(I/C + \hat{\mathbf{H}}^T \hat{\mathbf{H}}\right)^{-1} (\hat{\mathbf{H}}^T B \cdot \mathbf{T}) \\ & \mathbf{return} \ \mathbf{W}, \beta \end{split}$$

$$\mathbf{H} \leftarrow (\mathbf{X}^T \mathbf{W}) / (\mathbb{1} \mathbf{X} + \mathbb{1} \mathbf{W} - \mathbf{X}^T \mathbf{W})$$

return $\operatorname{sign}(\mathbf{H}\beta)$

References

[1] S. Zhan, S. Li and W. Wang, *A Very Nb Book*. Shanghai, P.R.C., East China Normal Univ. Press, 2022.