Submission Summary

Conference Name
IEEE 2022 International Conference on Machine Learning and Applications

Track Name
1. Main Conference

Paper ID
304

Paper Title
A NOVEL APPROACH FOR SYNTHETIC REDUCED NEAREST-NEIGHBOR LEVERAGING NEURAL NETWORKS

Abstract

Synthetic Reduced Nearest Neighbor is the nearest
neighbor model which is constrained on synthetic samples (i.e.,
prototypes). The body of work on such models includes proposals for improving the interpretability and optimization of SRNN models using expectation maximization. Motivated by the promise of this paradigm, we propose a novel expectation maximization approach for Synthetic Reduced Nearest Neighbors leveraging neural networks. Furthermore, we compare the performance of our proposed technique to classical state-of-the-art machine learning methods such as random forest and ensemble models. The empirical results demonstrate the advantages of using neural networks in lieu of an expectation maximization algorithm.

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Submission Files
A NOVEL APPROACH FOR SYNTHETIC REDUCED NEAREST-NEIGHBOR LEVERAGING NEURAL NETWORKS.pdf (950.6 Kb, 7/17/2022, 12:26:00 AM)

Submission Questions Response
1. Attendance
How will you attend the conference if the paper is accepted?

in-person