# TITLE

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*Abstract*: This paper re-introduces the Deep Belief Network (DBN) model by stating its history, previous work that leads up to its inception, its training mechanism, and its applications. The paper then compares different DBN models on a specific application, to identify the most suitable model for said application.

Keywords: Deep Belief Networks, Restricted Boltzmann Machines, Markov Random Fields, Maximal Cliques, Maximum Likelihood Estimation, KL-Divergence, Gibbs Sampling, Contrastive Divergence, MNIST Dataset, Comparative Analysis

1. Introduction

## BM vs RBM