

Deep Learning for Recommender System: Principles, Methods and Evaluation

Authors : Basiliyos Tilahun Betru, Charles Awono Onana, Bernabe Batchakui

Abstract : Recommender systems have become increasingly popular in recent years, and are utilized in numerous areas. Nowadays many web services provide several information for users and recommender systems have been developed as critical element of these web applications to predict choice of preference and provide significant recommendations. With the help of the advantage of deep learning in modeling different types of data and due to the dynamic change of user preference, building a deep model can better understand users demand and further improve quality of recommendation. In this paper, deep neural network models for recommender system are evaluated. Most of deep neural network models in recommender system focus on the classical collaborative filtering user-item setting. Deep learning models demonstrated high level features of complex data can be learned instead of using metadata which can significantly improve accuracy of recommendation. Even though deep learning poses a great impact in various areas, applying the model to a recommender system have not been fully exploited and still a lot of improvements can be done both in collaborative and content-based approach while considering different contextual factors.

Keywords : big data, decision making, deep learning, recommender system

Conference Title : ICSRD 2020 : International Conference on Scientific Research and Development

Conference Location : Chicago, United States

Conference Dates : December 12-13, 2020