ListNet on LETOR4.0

Introduction to ListNet

ListNet is a listwise ranking algorithm. Unlike pairwise approaches such as Ranking SVM and RankBoost using pairs of objects in learning, lists of objects are used as "instances" in listwise approch. ListNet employs cross entropy loss as the listwise loss function in gradient descent.

The details of ListNet can be found from this ICML paper.

Papers & Docs

Zhe Cao, Tao Qin, Tie-Yan Liu, Ming-Feng Tsai, and Hang Li. Learning to rank: from pairwise approach to listwise approach. In ICML '07: Proceedings of the 24th international conference on Machine learning, pages 129–136, New York, NY, USA, 2007. ACM Press.

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Notes

This document was written by Da Kuang. The experiments of ListNet on LETOR4.0 were conducted by Di He. If any problem, please contact letor@microsoft.com.