FRank on LETOR

Introduction to FRank

FRank is a learning-based ranking algorithm that uses a novel loss function called fidelity loss based on RankNet's probabilistic ranking framework. The proposed fidelity loss function has several useful characteristics for ranking. Furthermore, to efficiently minimize fidelity loss, the generalized additive model is also adopted in the development of the ranking algorithm we term Fidelity Rank (FRank). The proposed FRank ranking algorithm is thus a novel combination of RankNet's probabilistic ranking framework and RankBoost's generalized additive model.

For details of FRank, please refer to the SIGIR2007 paper.

Papers & Docs

Tsai, M. F., Liu, T. Y., Qin, T., Chen, H. H., and Ma, W. Y. 2007. FRank: a ranking method with fidelity loss. Proceedings of the 30th annual international ACM SIGIR conference on Research and development in information retrieval , 383–390.

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Notes

This document was written by Ming-Feng Tsai. The experiments of FRank on LETOR3.0 were conducted by Ming-Feng Tsai. If any problem, please contact letor@microsoft.com.