



Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology)

Hang Li

Download now

[Click here](#) if your download doesn't start automatically

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology)

Hang Li

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) Hang Li

Learning to rank refers to machine learning techniques for training the model in a ranking task. Learning to rank is useful for many applications in information retrieval, natural language processing, and data mining. Intensive studies have been conducted on the problem recently and significant progress has been made. This lecture gives an introduction to the area including the fundamental problems, existing approaches, theories, applications, and future work.

The author begins by showing that various ranking problems in information retrieval and natural language processing can be formalized as two basic ranking tasks, namely ranking creation (or simply ranking) and ranking aggregation. In ranking creation, given a request, one wants to generate a ranking list of offerings based on the features derived from the request and the offerings. In ranking aggregation, given a request, as well as a number of ranking lists of offerings, one wants to generate a new ranking list of the offerings.

Ranking creation (or ranking) is the major problem in learning to rank. It is usually formalized as a supervised learning task. The author gives detailed explanations on learning for ranking creation and ranking aggregation, including training and testing, evaluation, feature creation, and major approaches. Many methods have been proposed for ranking creation. The methods can be categorized as the pointwise, pairwise, and listwise approaches according to the loss functions they employ. They can also be categorized according to the techniques they employ, such as the SVM based, Boosting SVM, Neural Network based approaches.

The author also introduces some popular learning to rank methods in details. These include PRank, OC SVM, Ranking SVM, IR SVM, GBRank, RankNet, LambdaRank, ListNet & ListMLE, AdaRank, SVM MAP, SoftRank, Borda Count, Markov Chain, and CRanking.

The author explains several example applications of learning to rank including web search, collaborative filtering, definition search, keyphrase extraction, query dependent summarization, and re-ranking in machine translation.

A formulation of learning for ranking creation is given in the statistical learning framework. Ongoing and future research directions for learning to rank are also discussed.

Table of Contents: Introduction / Learning for Ranking Creation / Learning for Ranking Aggregation / Methods of Learning to Rank / Applications of Learning to Rank / Theory of Learning to Rank / Ongoing and Future Work

 [Download Learning to Rank for Information Retrieval and Nat ...pdf](#)

 [Read Online Learning to Rank for Information Retrieval and N ...pdf](#)

Download and Read Free Online Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) Hang Li

From reader reviews:

Linda Musselwhite:

This Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) book is absolutely not ordinary book, you have after that it the world is in your hands. The benefit you get by reading this book is actually information inside this reserve incredible fresh, you will get information which is getting deeper you read a lot of information you will get. This specific Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) without we recognize teach the one who examining it become critical in imagining and analyzing. Don't be worry Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) can bring when you are and not make your handbag space or bookshelves' turn into full because you can have it inside your lovely laptop even cellphone. This Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) having excellent arrangement in word along with layout, so you will not really feel uninterested in reading.

Henrietta Jimerson:

Information is provisions for people to get better life, information these days can get by anyone with everywhere. The information can be a expertise or any news even an issue. What people must be consider any time those information which is inside the former life are challenging to be find than now's taking seriously which one would work to believe or which one the particular resource are convinced. If you receive the unstable resource then you have it as your main information there will be huge disadvantage for you. All those possibilities will not happen with you if you take Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) as the daily resource information.

Richard Williams:

Spent a free a chance to be fun activity to accomplish! A lot of people spent their spare time with their family, or their friends. Usually they undertaking activity like watching television, likely to beach, or picnic within the park. They actually doing ditto every week. Do you feel it? Do you need to something different to fill your own personal free time/ holiday? Might be reading a book may be option to fill your free time/ holiday. The first thing that you'll ask may be what kinds of guide that you should read. If you want to try look for book, may be the reserve untitled Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) can be excellent book to read. May be it can be best activity to you.

Elizabeth Ramsey:

As we know that book is essential thing to add our knowledge for everything. By a guide we can know

everything we want. A book is a list of written, printed, illustrated or blank sheet. Every year seemed to be exactly added. This book Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) was filled in relation to science. Spend your free time to add your knowledge about your technology competence. Some people has several feel when they reading a book. If you know how big advantage of a book, you can sense enjoy to read a e-book. In the modern era like at this point, many ways to get book that you wanted.

Download and Read Online Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) Hang Li #5EC4I7PRN1X

Read Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li for online ebook

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li Free PDF d0wnl0ad, audio books, books to read, good books to read, cheap books, good books, online books, books online, book reviews epub, read books online, books to read online, online library, greatbooks to read, PDF best books to read, top books to read Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li books to read online.

Online Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li ebook PDF download

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li Doc

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li Mobipocket

Learning to Rank for Information Retrieval and Natural Language Processing (Synthesis Lectures on Human Language Technology) by Hang Li EPub