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Recommendation Systems From Introduction to Empirical Research

May 1, 2024

Springer Nature

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ABC	Spelled-out abbreviation and definition
BABI	Spelled-out abbreviation and definition
CABR	Spelled-out abbreviation and definition

Chapter 1

Introduction to Recommendation Systems

Abstract Recommendation systems nowadays are widely used in various industries, including business, IT, Pharmacy and government, etc.. Along with the development and thrive of WWW and other important computer techniques, such as IOT and neural network, the breath and depth of the use of recommendation systems have improved significantly. In this chapter, we highlight the evolution of recommendation systems. Discuss the use of recommendation systems in our daily life and beyond. Finally, we briefly discuss advanced topics in the area and leave the details to be elaborated in later chapters.

1.1 Evolution of Recommendation Systems

1.2 Applications of Recommendation Systems

1.3 Advanced Topics in Recommendation Systems

1.4 Summary

1.5 Bibliographic Notes

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Chapter 2

Traditional Recommendation Systems

Abstract

2.1 Collaborative Filtering

2.2 Content-based Recommendation Systems

2.3 Knowledge-based Recommendation Systems

2.4 Ensemble Recommendation Systems

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Chapter 3

Deep Recommendation Models

3.1 CNN-based Recommendation Models

3.2 RNN-based Recommendation Models

3.3 Deep RL-based Recommendation Models

3.4 Deep Embeddings

3.5 Transformers in Recommendation Systems

3.6 Hybrid Recommendation Models

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Chapter 4

Hybrid Recommendation Systems

4.1 Deep Feature Processing Modules

4.2 Deep Retrieval Modules

4.3 Deep Ranking Modules

4.4 Hybrid Schemes

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Chapter 5

Empirical Recommendation Systems

5.1 Web-based Recommendation Systems

5.1.1 Image Recommendation Systems

5.1.2 Video Recommendation Systems

5.1.3 Product Recommendation Systems

5.1.4 Social Recommendation Systems

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Chapter 6

System Evaluations

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6.2 Online Evaluations

6.2.1 Online Metrics

6.2.2 A/B Testing

6.2.3 Interleaving

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Chapter 7

Advanced Topics

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Appendix A

Appendix

All's well that ends well

A.1 Math Appendix

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