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| 1. Record Nr. | UNINA9910459628303321 |
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| Titolo | View-based 3-D object retrieval / / Yue Gao, Qionghai Dai |
| Pubbl/distr/stampa | Amsterdam, Netherlands : , : Elsevier, , 2015 ©2015 |
| ISBN | 0-12-802623-5 0-12-802419-4 |
| Edizione | [1st edition] |
| Descrizione fisica | 1 online resource (154 p.) |
| Collana | Computer Science Reviews and Trends |
| Disciplina | 006.37 |
| Soggetti | Image processing - Data processing Pattern recognition systems - Quality control Electronic books. |
| Lingua di pubblicazione | Inglese |
| Formato | Materiale a stampa |
| Livello bibliografico | Monografia |
| Note generali | Description based upon print version of record. |
| Nota di bibliografia | Includes bibliographical references. |
| Nota di contenuto | Front Cover; View-Based 3-D Object Retrieval; Copyright; Contents; Acknowledgments; Preface; Part I: The Start; Chapter 1: Introduction; 1.1 The Definition of 3DOR; 1.2 Model-Based 3DOR Versus View-Based 3DOR; 1.3 The Challenges of V3DOR; 1.4 Summary of Our Work; 1.4.1 View Extraction; 1.4.2 Representative View Selection; 1.4.3 Learning the Weights for Multiple Views; 1.4.4 Distance Measures for Object Matching; 1.4.5 Learning the Relevance Among 3-D Objects; 1.5 Structure of This Book; 1.6 Summary; References; Chapter 2: The Benchmark and Evaluation; 2.1 Introduction 2.2 The Standard Benchmarks 2.3 The Shape Retrieval Contest; 2.4 Evaluation Criteria in 3DOR; 2.5 Summary; References; Part II View Extraction, Selection, and Representation; Chapter 3: View Extraction; 3.1 Introduction; 3.2 Dense Sampling Viewpoints; 3.3 Predefined Camera Array; 3.4 Generated View; 3.5 Summary; References; Chapter 4: View Selection; 4.1 Introduction; 4.2 Unsupervised View Selection; 4.3 Interactive View Selection; 4.3.1 Multiview 3-D Object Matching; 4.3.2 View Clustering; 4.3.3 Initial Query View Selection; 4.3.4 Interactive View Selection with User Relevance Feedback 4.3.5 Learning a Distance Metric 4.3.6 Multiple Query Views Linear Combination; 4.3.7 The Computational Cost; 4.4 Summary; References; |

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Chapter 6: Multiple-View Distance Metric 6.1 Introduction; 6.2 Fundamental Many-to-Many Distance Measures; 6.3 Bipartite Graph Matching; 6.3.1 View Selection and Weighting; 6.3.2 Bipartite Graph Construction; 6.3.3 Bipartite Graph Matching; 6.4 Statistical Matching; 6.4.1 Adaptive View Clustering; 6.4.2 CCFV; 6.4.2.1 View Clustering and Query Model Training; 6.4.2.2 Positive and Negative Matching Models; 6.4.2.3 Calculation of the Similarity Between Q and O $S(Q, O)$; 6.4.2.4 Analysis of Computational Cost; 6.4.3 Markov Chain; 6.4.4 Gaussian Mixture Model Formulation

6.4.4.1 Conventional GMM Training; 6.4.4.2 Generative Adaptation of GMM; 6.4.4.3 Discriminative Adaptation of GMM; 6.4.4.4 Learning the Weights for Multiple GMMs; 6.5 Summary; References; Chapter 7: Learning-Based 3-D Object Retrieval; 7.1 Introduction; 7.2 Learning Optimal Distance Metrics; 7.2.1 Hausdorff Distance Learning; 7.2.2 Learning Bipartite Graph Optimal Matching; 7.3 3-D Object Relevance Estimation via Hypergraph Learning; 7.3.1 Hypergraph and Its Applications; 7.3.2 Learning on Single Hypergraph; 7.3.3 Learning on Multiple Hypergraphs

7.3.4 Learning the Weights for Multiple Hypergraphs

Sommario/riassunto

Content-based 3-D object retrieval has attracted extensive attention recently and has applications in a variety of fields, such as, computer-aided design, tele-medicine, mobile multimedia, virtual reality, and entertainment. The development of efficient and effective content-based 3-D object retrieval techniques has enabled the use of fast 3-D reconstruction and model design. Recent technical progress, such as the development of camera technologies, has made it possible to capture the views of 3-D objects. As a result, view-based 3-D object retrieval has become an essential but challenging res
