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Descrizione fisica	1 online resource (172 p.)
Collana	Series in machine perception and artificial intelligence ; ; v. 50
Altri autori (Persone)	ChristensenH. I <1962-> (Henrik I.) PhillipsP. Jonathon
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Soggetti	Computer vision - Evaluation Electronic books.
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	All but two contributions are revised papers from a workshop held in 2000.
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	Contents ; Foreword ; Chapter 1 Automated Performance Evaluation of Range Image Segmentation Algorithms ; 1.1. Introduction ; 1.2. Scoring the Segmented Regions ; 1.3. Segmentation Performance Curves ; 1.4. Training of Algorithm Parameters ; 1.5. Train-and-Test Performance Evaluation 1.6. Training Stage 1.7. Testing Stage ; 1.8. Summary and Discussion ; References ; Chapter 2 Training/Test Data Partitioning for Empirical Performance Evaluation ; 2.1. Introduction ; 2.2. Formal Problem Definition ; 2.2.1. Distance Function ; 2.2.2. Computational Complexity 2.3. Genetic Search Algorithm 2.4. A Testbed ; 2.5. Experimental Results ; 2.6. Conclusions ; References ; Chapter 3 Analyzing PCA-based Face Recognition Algorithms: Eigenvector Selection and Distance Measures ; 3.1. Introduction ; 3.2. The FERET Database ; 3.3. Distance Measures 3.3.1. Adding Distance Measures 3.3.2. Distance Measure Aggregation ; 3.3.3.

Correlating Distance Metrics ; 3.3.4. When Is a Difference Significant ; 3.4. Selecting Eigenvectors ; 3.4.1. Removing the Last Eigenvectors ; 3.4.2. Removing the First Eigenvector
3.4.3. Eigenvalue Ordered by Like-Image Difference
3.4.4. Variation Associated with Different Test/Training Sets
; 3.5. Conclusion ; References ; Chapter 4 Design of a Visual System for Detecting Natural Events by the Use of an Independent Visual Estimate: A Human Fall Detector
4.1. Introduction

Sommario/riassunto

This book provides comprehensive coverage of methods for the empirical evaluation of computer vision techniques. The practical use of computer vision requires empirical evaluation to ensure that the overall system has a guaranteed performance. The book contains articles that cover the design of experiments for evaluation, range image segmentation, the evaluation of face recognition and diffusion methods, image matching using correlation methods, and the performance of medical image processing algorithms. Sample Chapter(s)
Foreword (228 KB)
Chapter 1: Introduction (505 KB)
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