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Nota di contenuto	1. Overview -- 2. Introduction to OpenCV -- 3. Getting to know OpenCV data types -- 4. Images and Large Array Types -- 5. Array Operations -- 6. Drawing and Annotating -- 7. Functors in OpenCV -- 8. Image, Video, and Data Files -- 9. Cross-Platform and Native Windows -- 10. Filters and Convolution -- 11. General Image Transforms -- 12. Image Analysis -- 13. Histograms and Templates -- 14. Contours -- 15. Background Subtraction -- 16. Keypoints and Descriptors -- 17. Tracking -- 18. Camera Models and Calibration -- 19. Projection and Three-Dimensional Vision -- 20. The Basics of Machine Learning in OpenCV -- 21. StatModel: The Standard Model for Learning in OpenCV -- 22. Object Detection -- 23. Future of OpenCV -- A. Planar Subdivisions -- B. opencv_contrib -- C. Calibration Patterns.
Sommario/riassunto	Get started in the rapidly expanding field of computer vision with this practical guide. Written by Adrian Kaehler and Gary Bradski, creator of the open source OpenCV library, this book provides a thorough introduction for developers, academics, roboticists, and hobbyists. You'll learn what it takes to build applications that enable computers to "see" and make decisions based on that data. With over 500 functions that span many areas in vision, OpenCV is used for commercial

applications such as security, medical imaging, pattern and face recognition, robotics, and factory product inspection. This book gives you a firm grounding in computer vision and OpenCV for building simple or sophisticated vision applications. Hands-on exercises in each chapter help you apply what you've learned. This volume covers the entire library, in its modern C++ implementation, including machine learning tools for computer vision. Learn OpenCV data types, array types, and array operations. Capture and store still and video images with HighGUI. Transform images to stretch, shrink, warp, remap, and repair Explore pattern recognition, including face detection. Track objects and motion through the visual field Reconstruct 3D images from stereo vision. Discover basic and advanced machine learning techniques in OpenCV.