1. Record Nr. UNINA9910798379303321

Autore	Nagpal Varun
Titolo	Android sensor programming by example : take your Android applications to the next level of interactivity by exploring the wide variety of Android sensors / / Varun Nagpal
Pubbl/distr/stampa	Birmingham : , : Packt Publishing, , 2016
ISBN	1-78528-466-5
Edizione	[1st edition]
Descrizione fisica	1 online resource (191 pages) : color illustrations
Collana	Community experience distilled
Soggetti	Mobile apps Application software - Development
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Sommario/riassunto	Take your Android applications to the next level of interactivity by exploring the wide variety of Android sensors About This Book Get a thorough understanding of the fundamentals and framework of Android sensors. Acquire knowledge of advance sensor programming, and learn how to connect and use sensors in external devices such as the Android Watch, Polar heart rate monitors, Adidas speed cells, and so on. Learn from real-world sensor-based applications such as the Pedometer app to detect daily steps, the Driving app to detect driving events, and the Professional Fitness tracker app to track heart rate, weight, daily steps, calories burned, and so on. Who This Book Is For This book is targeted at Android developers who want to get a good understanding of sensors and write sensor-based applications, or who want to enhance their existing applications with additional sensor functionality. A basic knowledge of Android development is required What You Will Learn Learn about sensor fundamentals, different types of sensors, and the sensor co-ordinate system Understand the various classes, callbacks, and APIs of the Android Sensor framework Check all the available sensors on an Android device and know their individual capabilities—for example, their range of values, power consumption, and so on. Implement sensor fusion using two or more sensors

	together and learn to compensate for the weakness of one sensor by using the strength of another Build a variety of sensor based, real-world applications such as Weather, Pedometer, Compass, Driving Events Detection, Fitness Tracker, and so on. Get to know about wake up and non-wake up sensors, wake locks, and how to use sensor batch processing along with the sensor hardware FIFO queue Develop efficient battery and processor algorithms using raw sensor data to solve real-world problems Connect to a variety of remote sensors such as body weight measurement and body fat percentage measurement using the Google Fit platform from your Android app In Detail Android phones available in today's market have a wide variety of powerful and highly precise sensors. Interesting applications can be built with them such as a local weather app using weather sensors, analyzing risky driving behavior using motion sensors, a fitness tracker using step-counter sensors, and so on. Sensors in external devices such as Android Watch, Body Analyzer & Weight Machine, Running Speed Cell, and so on can also be connected and used from your A...

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Record Nr.	UNINA9910483831603321
Autore	Barbu Adrian
Titolo	Monte Carlo Methods / / by Adrian Barbu, Song-Chun Zhu
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2020
ISBN	981-13-2971-0
Edizione	[1st ed. 2020.]
Descrizione fisica	1 online resource (XVI, 422 p. 250 illus., 185 illus. in color.)
Disciplina	519.282
Soggetti	Mathematics - Data processing Computer science - Mathematics Mathematical statistics Image processing - Digital techniques Computer vision Statistics Computational Mathematics and Numerical Analysis Probability and Statistics in Computer Science Computer Imaging, Vision, Pattern Recognition and Graphics Statistical Theory and Methods Statistics in Engineering, Physics, Computer Science, Chemistry and Earth Sciences

Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	1 Introduction to Monte Carlo Methods -- 2 Sequential Monte Carlo -- 3 Markov Chain Monte Carlo - the Basics -- 4 Metropolis Methods and Variants -- 5 Gibbs Sampler and its Variants -- 6 Cluster Sampling Methods -- 7 Convergence Analysis of MCMC -- 8 Data Driven Markov Chain Monte Carlo -- 9 Hamiltonian and Langevin Monte Carlo -- 10 Learning with Stochastic Gradient -- 11 Mapping the Energy Landscape.
Sommario/riassunto	This book seeks to bridge the gap between statistics and computer science. It provides an overview of Monte Carlo methods, including Sequential Monte Carlo, Markov Chain Monte Carlo, Metropolis-Hastings, Gibbs Sampler, Cluster Sampling, Data Driven MCMC, Stochastic Gradient descent, Langevin Monte Carlo, Hamiltonian Monte Carlo, and energy landscape mapping. Due to its comprehensive nature, the book is suitable for developing and teaching graduate courses on Monte Carlo methods. To facilitate learning, each chapter includes several representative application examples from various fields. The book pursues two main goals: (1) It introduces researchers to applying Monte Carlo methods to broader problems in areas such as Computer Vision, Computer Graphics, Machine Learning, Robotics, Artificial Intelligence, etc.; and (2) it makes it easier for scientists and engineers working in these areas to employ Monte Carlo methods to enhance their research.