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Descrizione fisica	1 online resource (166 pages)
Collana	Professional and Applied Computing Series
Altri autori (Persone)	ChavanPallavi Vijay
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Soggetti	Deep learning (Machine learning) Graphics processing units
Lingua di pubblicazione	Inglese
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Note generali	Description based upon print version of record.
Nota di contenuto	1 Introduction to Deep Learning and GPU Acceleration -- 2 Convolutional Neural Networks (CNNs) with GPU Optimization -- 3 Sequence Models and Recurrent Networks -- 4 Generative Models and integration with Microsoft Copilots -- 5 Deployment on Edge Devices -- 6 Scaling and Distributed Training.
Sommario/riassunto	Explore the convergence of deep learning and GPU technology. This book is a complete guide for those wishing to use GPUs to accelerate AI workflows. The book is meant to make complex concepts understandable, with step-by-step instructions on how to set up and use GPUs in deep learning applications. Starting with an introduction to the fundamentals, you'll dive into progressive topics like Convolutional Neural Networks (CNNs) and sequence models, exploring how GPU optimization boosts performance. Further, you will learn the power of generative models, and take your skills by deploying AI models on edge devices. Finally, you will master the art of scaling and distributed training to handle large datasets and complex tasks efficiently. This book is your roadmap to becoming proficient in deep learning and harnessing the full potential of GPUs. What You Will Learn: How to apply deep learning techniques on GPUs to solve challenging AI problems. Optimizing neural networks for faster training and inference on GPUs Integration of GPUs with Microsoft Copilots Implementing VAEs (Variational Autoencoders) with TensorFlow and PyTorch.

