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Titolo	Deep Belief Nets in C++ and CUDA C: Volume 1 : Restricted Boltzmann Machines and Supervised Feedforward Networks / / by Timothy Masters
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ISBN	1-4842-3591-6
Edizione	[1st ed. 2018.]
Descrizione fisica	1 online resource (225 pages) : illustrations
Disciplina	006.32
Soggetti	Artificial intelligence Programming languages (Electronic computers) Big data Artificial Intelligence Programming Languages, Compilers, Interpreters Big Data Big Data/Analytics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Includes index.
Nota di contenuto	1. Introduction -- 2. Supervised Feedforward Networks -- 3. Restricted Boltzmann Machines -- 4. Greedy Training: Generative Samplings -- 5. DEEP Operating Manual.
Sommario/riassunto	Discover the essential building blocks of the most common forms of deep belief networks. At each step this book provides intuitive motivation, a summary of the most important equations relevant to the topic, and concludes with highly commented code for threaded computation on modern CPUs as well as massive parallel processing on computers with CUDA-capable video display cards. The first of three in a series on C++ and CUDA C deep learning and belief nets, Deep Belief Nets in C++ and CUDA C: Volume 1 shows you how the structure of these elegant models is much closer to that of human brains than traditional neural networks; they have a thought process that is capable of learning abstract concepts built from simpler primitives. As such, you'll see that a typical deep belief net can learn to recognize complex patterns by optimizing millions of parameters, yet this model can still be resistant to overfitting. All the routines and algorithms presented in

the book are available in the code download, which also contains some libraries of related routines. You will: Employ deep learning using C++ and CUDA C Work with supervised feedforward networks Implement restricted Boltzmann machines Use generative samplings Discover why these are important.