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Titolo	Practical MATLAB Deep Learning : A Project-Based Approach / / by Michael Paluszek, Stephanie Thomas
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Descrizione fisica	1 online resource (XV, 252 p. 111 illus., 100 illus. in color.)
Disciplina	005.13
Soggetti	Programming languages (Electronic computers) Artificial intelligence Computer input-output equipment Computer science—Mathematics Computer programming Programming Languages, Compilers, Interpreters Artificial Intelligence Hardware and Maker Mathematics of Computing Programming Techniques
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references.
Nota di contenuto	1 What is Deep Learning? -- 2 MATLAB Machine and Deep Learning Toolboxes -- 3 Finding Circles with Deep Learning -- 4 Classifying Movies -- 5 Algorithmic Deep Learning -- 6 Tokamak Disruption Detection -- 7 Classifying a Pirouette -- 8 Completing Sentences -- 9 Terrain Based Navigation -- 10 Stock Prediction -- 11 Image Classification -- 12 Orbit Determination.
Sommario/riassunto	Harness the power of MATLAB for deep-learning challenges. This book provides an introduction to deep learning and using MATLAB's deep-learning toolboxes. You'll see how these toolboxes provide the complete set of functions needed to implement all aspects of deep learning. Along the way, you'll learn to model complex systems, including the stock market, natural language, and angles-only orbit

determination. You'll cover dynamics and control, and integrate deep-learning algorithms and approaches using MATLAB. You'll also apply deep learning to aircraft navigation using images. Finally, you'll carry out classification of ballet pirouettes using an inertial measurement unit to experiment with MATLAB's hardware capabilities. You will:

- Explore deep learning using MATLAB and compare it to algorithms
- Write a deep learning function in MATLAB and train it with examples
- Use MATLAB toolboxes related to deep learning
- Implement tokamak disruption prediction.
