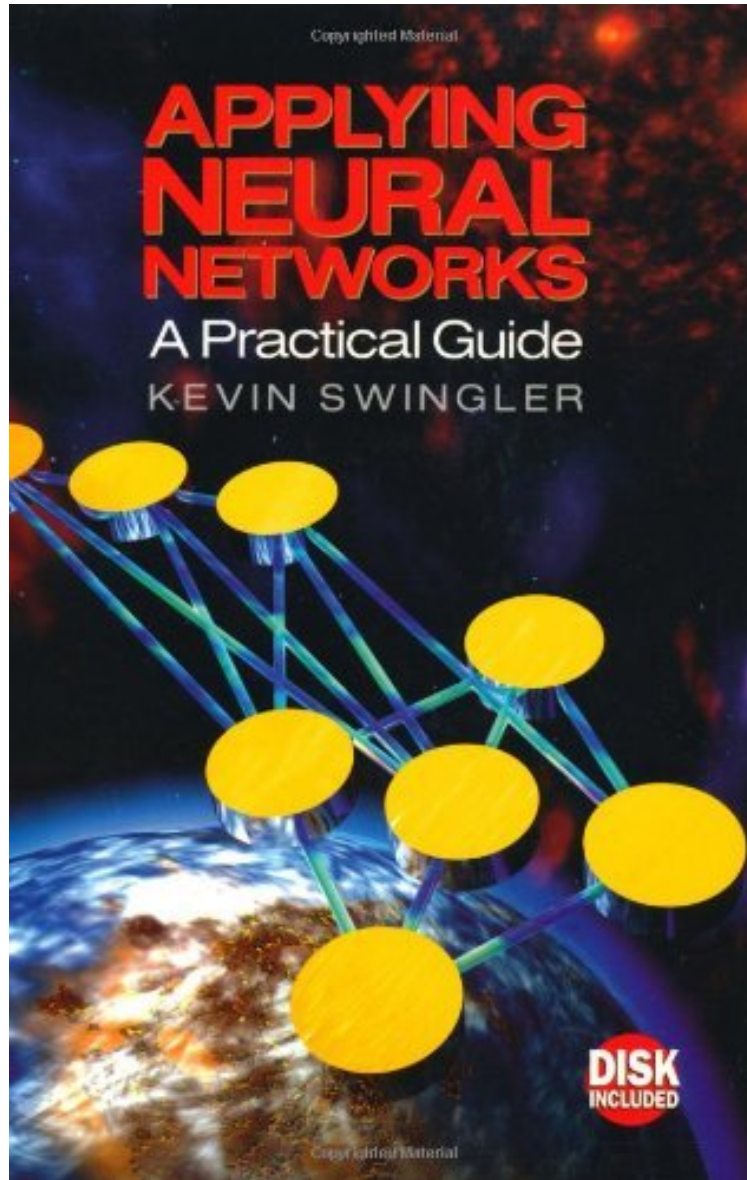


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Applying Neural Networks: A Practical Guide

Von Kevin Swingler

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Von Kevin Swingler : Applying Neural Networks: A Practical Guide before purchasing it in order to gage whether or not it would be worth my time, and all praised Applying Neural Networks: A Practical Guide:

KundenrezensionenHilfreichste Kundenrezensionen5 von 5 Kunden fanden die folgende Rezension hilfreich. A Commentary on Kevin Swingler's Applying Neural NetworksVon Ian BouystressApplying Neural Networks not only is a good review of the types of neural networks and and excellent discussion of how to design and implement them. It

not only teaches how to select the type of neural net to use. What I loved most about this book was that it discussed with insightful, vivid details how to plan for, conceptualize, and prepare the neural net project long before selecting the actual type of network. It tells how and why to make the inquiries and choices you must make starting very early and at each stage of project development. For example, it discusses how to prepare data, how to choose data types, how to scale it, how to collect it, validation of it, data quality checking, and encoding it. Data quality and preparation are important keys to neural network success, like ingredients-preparation in cooking. Swingler shows why in an easy-to-understand manner. The book also discusses how to select project variables, outlier removal, the tradeoffs involved in network parameter selections, building training and test data, how to analyze outputs and errors, how to set stop-training criteria (and a host of other thresholds), how to visualize training data and error distributions in 2D and 3D, what derivatives are and what they mean, how to do project maintenance, how to adapt the network to external changes, and total project management. Some very good examples of neural network projects illustrate how various researchers implemented these choices. This book will tell you how to make some excellent choices in the design and running of a neural network project, as well as teach you why you are selecting between the alternatives. It is the only true, in-depth neural network methodology book I have found.

Kurzbeschreibung In this computer-based era, neural networks are an invaluable tool. They have been applied extensively in business forecasting, machine health monitoring, process control, and laboratory data analysis due to their modeling capabilities. There are numerous applications for neural networks, but a great deal of care and expertise is necessary to keep a neural-based project in working order. This all-inclusive coverage gives you everything you need to put neural networks into practice. This informative book shows the reader how to plan, run, and benefit from a neural-based project without running into the roadblocks that often crop up. The author uses the most popular type of neural network, the Multi-Layer Perceptron, and presents every step of its development. Each chapter presents a subsequent stage in network development through easy-to-follow discussion. Every decision and possible problem is considered in depth, and solutions are offered. The book includes a how-to-do-it reference section, and a set of worked examples. The second half of the book examines the successful application of neural networks in fields including signal processing, financial prediction, business decision support, and process monitoring and control. The book comes complete with a disk containing C and C++ programs to get you started.

Key Features* Divides chapters into three sections for quick reference: Discussion, How to do it, and Examples* Examines many case studies and real world examples to illustrate the methods presented* Includes a disk with C and C++ programs which implement many of the techniques discussed in the text* Allows the reader to develop a neural network based solution

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