Publisher’s description: The book introduces artificial neural networks starting from the basics and increasingly demanding more effort from readers, who can learn the theory and its applications in statistical methods with concrete Python code examples. It presents a wide range of widely used statistical methodologies, applied in several research areas with Python code examples, which are available online. It is suitable for scientists and developers as well as graduate students.

Key features:
- Discusses applications in several research areas
- Covers a wide range of widely used statistical methodologies
- Includes Python code examples
- Gives numerous neural network models

This book covers fundamental concepts on Neural Networks including Multivariate Statistics Neural Networks, Regression Neural Network Models, Survival Analysis Networks, Time Series Forecasting Networks, Control Chart Networks, and Statistical Inference Results.

This book is suitable for both teaching and research. It introduces neural networks and is a guide for outsiders of academia working in data mining and artificial intelligence (AI). This book brings together data analysis from statistics to computer science using neural networks.

MSC:
- 62-02 Research exposition (monographs, survey articles) pertaining to statistics
- 62M45 Neural nets and related approaches to inference from stochastic processes
- 68T05 Learning and adaptive systems in artificial intelligence

Keywords:
statistical learning; neural networks; Python

Software:
Python

Full Text: DOI