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Nota di contenuto	Intro -- Industrial Data Analytics for Diagnosis and Prognosis -- Contents -- Preface -- Acknowledgments -- Acronyms -- Table of Notation -- 1 Introduction -- 1.1 Background and Motivation -- 1.2 Scope and Organization of the Book -- 1.3 How to Use This Book -- Bibliographic Note -- Part 1 Statistical Methods and Foundation for Industrial Data Analytics -- 2 Introduction to Data Visualization and Characterization -- 2.1 Data Visualization -- 2.1.1 Distribution Plots for a Single Variable -- 2.1.2 Plots for Relationship Between Two Variables -- 2.1.3 Plots for More than Two Variables -- 2.2 Summary Statistics -- 2.2.1 Sample Mean, Variance, and Covariance -- 2.2.2 Sample Mean Vector and Sample Covariance Matrix -- 2.2.3 Linear Combination of Variables -- Bibliographic Notes -- Exercises -- 3 Random Vectors and the Multivariate Normal Distribution -- 3.1 Random Vectors -- 3.2 Density Function and Properties of Multivariate Normal Distribution -- 3.3 Maximum Likelihood Estimation for Multivariate Normal Distribution -- 3.4 Hypothesis Testing on Mean

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