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   Sommario/riassunto Data Science for Wind Energy provides an in-depth discussion on how data science methods can improve decision making for wind energy applications, near-ground wind field analysis and forecast, turbine power curve fitting and performance analysis, turbine reliability assessment, and maintenance optimization for wind turbines and wind farms. A broad set of data science methods covered, including time series models, spatio-temporal analysis, kernel regression, decision trees, kNN, splines, Bayesian inference, and importance sampling. More importantly, the data science methods are described in the context of wind energy applications, with specific wind energy examples and case studies. Features Provides an integral treatment of data science methods and wind energy applications Includes specific demonstration of particular data science methods and their use in the context of addressing wind energy needs Presents real data, case studies and computer codes from wind energy research and industrial practice Covers material based on the author's ten plus years of academic research and insights