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Nota di contenuto	Part 1: Introduction to Artificial Intelligence and Heuristics -- 1. Introduction -- 2. Heuristics -- 3. Data Engineering Techniques for Machine Learning and Heuristics -- Part 2: Food Security Machine Learning and Heuristics Models -- 4. Food Security -- 5. Food Security – Quality and Safety Drivers -- 6. ML Models - Food Security and Climate Change -- Part 3: Linkage Models -- 7. Food Security and Advanced Imaging Radiometer ML Models -- 8. Composite Models - Food Security and Natural Resources -- 9. Linkage Models: Economic

Key Drivers and Agricultural Production -- 10. Heuristics and Agricultural Production Modeling- Part IV: Conclusion -- 11. Future.

Sommario/riassunto

This book introduces readers to advanced data science techniques for signal mining in connection with agriculture. It shows how to apply heuristic modeling to improve farm-level efficiency, and how to use sensors and data intelligence to provide closed-loop feedback, while also providing recommendation techniques that yield actionable insights. The book also proposes certain macroeconomic pricing models, which data-mine macroeconomic signals and the influence of global economic trends on small-farm sustainability to provide actionable insights to farmers, helping them avoid financial disasters due to recurrent economic crises. The book is intended to equip current and future software engineering teams and operations research experts with the skills and tools they need in order to fully utilize advanced data science, artificial intelligence, heuristics, and economic models to develop software capabilities that help to achieve sustained food security for future generations.