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Altri autori (Persone)	BuscemaMassimo TastleWilliam J
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Nota di contenuto	Dedication -- Preface.- Chapter 1. Introduction to Artificial Networks and Law Enforcement Analytics; William J. Tastle -- Chapter 2. Law Enforcement and Artificial Intelligence; Massimo Buscema -- Chapter 3. The General Philosophy of Artificial Adaptive Systems; Massimo Buscema -- Chapter 4. A Brief Introduction to Evolutionary Algorithms and the Genetic Doping Algorithm; M. Buscema, M. Capriotti -- Chapter 5. Artificial Adaptive Systems in Data Visualization: Pro-Active data; Massimo Buscema -- Chapter 6. The Metropolitan Police Service Central Drug Trafficking Database: Evidence of Need; Geoffrey Monaghan and Stefano Terzi -- Chapter 7. Supervised Artificial neural Networks: Back Propagation Neural Networks; Massimo Buscema -- Chapter 8. Pre-Processing Tools for Non-Linear Data Sets; Massimo Buscema, Alessandra Mancini and Marco Breda -- Chapter 9. Metaclassifiers; Massimo Buscema, Stefano Terzi -- Chapter 10. Auto Identification of a Drug Seller Utilizing a Specialized Supervised Neural

Network; Massimo Buscema and Marco Intraligi -- Chapter 11. Visualization and Clustering of Self-Organizing Maps; Giulia Massini -- Chapter 12. Self-Organizing Maps: Identifying Non-Linear Relationships in Massive Drug Enforcement Databases; Guila Massini -- Chapter 13. Theory of Constraint Satisfaction Neural Networks; Massimo Buscema -- Chapter 14. Application of the Constraint Satisfaction Network; Marco Intraligi and Massimo Buscema -- Chapter 15. Auto-Contractive Maps, h Function and the Maximally regular Graph: A new methodology for data mining; Massimo Buscema -- Chapter 16. Analysis of a Complex Dataset Using the Combined MST and Auto Contractive Map; Giovanni Pieri -- Chapter 17. Auto Contractive Mapsand Minimal Spanning tree: Organization of Complex datasets on criminal behavior to aid in the deduction of network connectivity; Giula Massini and Massimo Buscema -- Chapter 18. Data Mining Using Non-linear Auto AssociativeArtificial Neural Networks: The Arrestee Dataset; Massimo Buscema -- Chapter 19. Artificial Adaptive System for Parallel Querying of Multiple Databases; Massimo Buscema.-.

Sommario/riassunto

This book provides a thorough summary of the means currently available to the investigators of Artificial Intelligence for making criminal behavior (both individual and collective) foreseeable, and for assisting their investigative capacities. The volume provides chapters on the introduction of artificial intelligence and machine learning suitable for an upper level undergraduate with exposure to mathematics and some programming skill or a graduate course. It also brings the latest research in Artificial Intelligence to life with its chapters on fascinating applications in the area of law enforcement, though much is also being accomplished in the fields of medicine and bioengineering. Individuals with a background in Artificial Intelligence will find the opening chapters to be an excellent refresher but the greatest excitement will likely be the law enforcement examples, for little has been done in that area. The editors have chosen to shine a bright light on law enforcement analytics utilizing artificial neural network technology to encourage other researchers to become involved in this very important and timely field of study.