

1. Record Nr.	UNINA9910508460503321
Titolo	AI and analytics for smart cities and service systems : proceedings of the 2021 INFORMS International Conference on Service Science // editors, Robin Qiu, Kelly Lyons, Weiwei Chen
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2021] ©2021
ISBN	3-030-90275-7
Descrizione fisica	1 online resource (413 pages)
Collana	Lecture notes in operations research
Disciplina	338.4
Soggetti	Service industries - Management Service industries - Technological innovations Artificial intelligence Smart cities
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Contents -- Deep Learning and Prediction of Survival Period for Breast Cancer Patients -- 1 Introduction -- 2 Related Works -- 3 Dataset -- 3.1 Data Collection and Cleaning -- 3.2 Data Preprocessing -- 4 Research Methodology -- 4.1 Deep Learning Architectures -- 4.2 Model Architecture and Parameters -- 4.3 Model Tuning -- 4.4 Models for Comparison with Previous Research -- 4.5 Feature Importance -- 4.6 Experimental Setting -- 5 Results and Discussion -- 5.1 Evaluation Metrics -- 5.2 Classification Model Results -- 5.3 Regression Model Results -- 5.4 Discussion -- 5.5 Feature Importance -- 6 Conclusions -- References -- Should Managers Care About Intra-household Heterogeneity? -- 1 Introduction -- 2 Literature Review -- 3 Data -- 4 Model -- 5 Results -- 6 Managerial Implications -- 7 Conclusion -- References -- Penalizing Neural Network and Autoencoder for the Analysis of Marketing Measurement Scales in Service Marketing Applications -- 1 Introduction -- 2 Background -- 2.1 Autoencoder -- 2.2 Relationship Between Factor Model and Autoencoder -- 3 Proposed Method -- 4 Empirical Analysis -- 4.1 Data Collection -- 4.2 Comparative Models and Estimations -- 4.3 Result -- 5 Discussion -- 6

Concluding Remarks -- References -- Prediction of Gasoline Octane Loss Based on t-SNE and Random Forest -- 1 Introduction -- 2 Research Method -- 3 Experiment -- 3.1 Nonlinear Dimensionality Reduction -- 3.2 Linear Dimension Reduction -- 3.3 Prediction Model of Octane Loss Based on Random Forrest -- 3.4 Analysis of Model Results -- 4 Conclusion -- References -- Introducing AI General Practitioners to Improve Healthcare Services -- 1 Introduction -- 2 Literature Review -- 3 The Model -- 4 Analytical Results -- 5 Numerical Results -- 6 Discussion -- References -- A U-net Architecture Based Model for Precise Air Pollution Concentration Monitoring.

1 Introduction -- 2 Method -- 2.1 Convolution and Activation -- 2.2 Pooling Layer -- 2.3 Fully Connected Layer -- 3 Data -- 3.1 Satellite Data -- 3.2 Meteorological Data -- 3.3 High Density PM2.5 Monitoring Data -- 3.4 Topography Data -- 4 Result -- 5 Application -- 5.1 Beijing Spatial PM2.5 Concentration Distribution -- 5.2 High Value Areas -- 6 Summary -- References -- An Interpretable Ensemble Model of Acute Kidney Disease Risk Prediction for Patients in Coronary Care Units -- 1 Introduction -- 2 Data Set -- 2.1 Data Source -- 2.2 Data Pre-processing -- 3 Methods -- 3.1 Framework -- 3.2 Prediction -- 3.3 Interpretation -- 4 Results -- 4.1 Comparison of Different Methodologies with All Patient Features -- 4.2 Comparison of Different Feature Groups -- 4.3 Important Predictors -- 4.4 Fluid Status and Blood Pressure Management for CCU Patients with AKI -- 5 Summary -- References -- Algorithm for Predicting Bitterness of Children's Medication -- 1 Introduction -- 2 Materials and Methods -- 2.1 Data Preparation -- 2.2 Molecular Representation -- 2.3 Dimensionality Reduction -- 2.4 Algorithms and Evaluation Metrics -- 2.5 Model Construction -- 3 Results -- 3.1 Chemical Features of Compounds -- 3.2 Application of the Model -- 4 Discussion and Conclusions -- References -- Intelligent Identification of High Emission Road Segment Based on Large-Scale Traffic Datasets -- 1 Introduction -- 2 Methods and Materials -- 2.1 Technical Route -- 2.2 Calculation of Emission Factors -- 2.3 Traffic Flow Simulation -- 2.4 Identification of High-Emission Road Segments -- 3 Application -- 3.1 Road Network Emission Distribution -- 3.2 Road Network Emission Daily Variation -- 3.3 Identification Result of Road Segment with High Emission -- 4 Summary -- References -- Construction Cost Prediction for Residential Projects Based on Support Vector Regression -- 1 Introduction.

2 Determination of Construction Cost Prediction Indicators for Residential Projects -- 2.1 Identification of Construction Cost Prediction Indicators -- 2.2 Quantification of Prediction Indicators -- 2.3 Reduction of Prediction Indicators -- 3 Establishment of Construction Cost Prediction Model Based on Support Vector Regression -- 4 Case Application -- 4.1 Case Description -- 4.2 Data Preprocessing -- 4.3 Construction Cost Prediction -- 5 Summary -- References -- Evolution of Intellectual Structure of Data Mining Research Based on Keywords -- 1 Introduction -- 2 Data -- 2.1 Data Source -- 2.2 Data Acquisition -- 2.3 Data Preprocessing -- 3 Analysis on the Evolution of Keyword Frequency -- 3.1 Some Keywords Appear Often the High-Frequency Keywords Over the 10 Years -- 3.2 Some Keywords Appeared in the Past, but not so in the Present -- 3.3 Some Keywords Appeared only in the Recent Years, but not so in the Present -- 4 Matrix Construction for Co-word Analysis -- 4.1 Word Frequency Estimate -- 4.2 Construction of Co-word Matrix -- 5 Clustering Analysis of the Co-word Matrix -- 5.1 Analysis on the Intellectual Structure in Data Mining from 2007 to 2016 -- 5.2 Analysis

on the Intellectual Structure of Data Mining from 2007 to 2011 -- 5.3
An Analysis on the Intellectual Structure of Data Mining from 2012
to 2016 -- 6 Conclusions -- References -- Development of a Cost
Optimization Algorithm for Food and Flora Waste to Fleet Fuel (F4) -- 1
Introduction -- 2 Input Parameter Information -- 2.1 AD Capital Costs
-- 2.2 AD Operating Costs -- 2.3 Waste Pre-processing and Biogas
Conversion Costs -- 2.4 Food and Yard Waste Generation Estimates --
2.5 Transportation Cost Estimates -- 3 F4Optimization -- 4 Case Study
for City of Dallas -- 5 Conclusions and Future Work -- References --
A Comparative Study of Machine Learning Models in Predicting Energy
Consumption.

1 Introduction -- 1.1 Related Work -- 2 Data Resource -- 2.1 Data
Preparation -- 2.2 Data Pre-processing -- 3 Machine Learning Models
-- 4 Results and Conclusions -- References -- Simulation Analysis
on the Effect of Market-Oriented Rental Housing Construction Policy
in Nanjing -- 1 Introduction -- 2 Policy Mechanism -- 3 Model Building
-- 3.1 Basic Assumptions -- 3.2 Consumer Agent Building -- 3.3
Government Agent Building -- 4 Simulation Analysis -- 4.1 Simulation
Experiment Design -- 4.2 Data Processing and Parameter Acquisition
-- 4.3 Simulation Experiment Analysis -- 5 Suggestions
and Conclusions -- 5.1 Suggestions -- 5.2 Conclusions -- References
-- Accidents Analysis and Severity Prediction Using Machine Learning
Algorithms -- 1 Introduction -- 2 Data Source -- 2.1 Exploratory Data
Analysis -- 2.2 Data Preprocessing -- 3 Methodology -- 4 Results
and Future Work -- References -- Estimating Discrete Choice Models
with Random Forests -- 1 Introduction -- 1.1 Literature Review -- 2
Discrete Choice Models and Binary Choice Forests -- 3 Data and
Estimation -- 4 Why Do Random Forests Work Well? -- 5 Numerical
Experiments -- 5.1 Real Data: IRI Academic Dataset -- 5.2 Real Data:
Hotel -- References -- Prediction and Analysis of Chinese Water
Resource: A System Dynamics Approach -- 1 Introduction -- 2
Literature Review -- 3 Problem Statement and Solution Approach -- 3.1
Theory and Method of System Dynamics -- 3.2 System Analysis Water
Resources in China -- 3.3 Constructing System Dynamics Model -- 3.4
Simulation Schemes -- 3.5 Output Results -- 3.6 Comparative Analysis
-- 4 Numerical Results -- 5 Conclusion -- References -- Pricing
and Strategies in Queuing Perspective Based on Prospect Theory -- 1
Introduction -- 2 The Literature Review -- 3 The Model Setup -- 3.1
The Utility Model -- 3.2 The Priority Service Fee and Revenue
Management.

4 Objective Optimization and Insights Analysis -- 4.1 Revenue
Maximization -- 4.2 Social Welfare Maximization -- 4.3 Utility
Maximization -- 5 Comparison Analysis of the Optimal Solutions -- 6
Conclusions and Future Research -- References -- Research on Hotel
Customer Preferences and Satisfaction Based on Text Mining: Taking
Ctrip Hotel Reviews as an Example -- 1 Introduction -- 2 Online Hotel
Review Analysis Process -- 3 Data Acquisition -- 3.1 Data Crawling --
3.2 Data Preprocessing -- 4 Data Analysis -- 5 Sentiment Analysis --
5.1 Sentiment Polarity Analysis Using SnowNLP -- 5.2 Sentiment
Analysis Effect Evaluation -- 6 Summary -- References -- Broadening
the Scope of Analysis for Peer-to-Peer Local Energy Markets to Improve
Design Evaluations: An Agent-Based Simulation Approach -- 1
Introduction -- 2 Methodology -- 2.1 Environment Design -- 2.2
Agent Design -- 2.3 Experiment Design -- 3 Results and Discussion --
3.1 Learning Model Tuning -- 3.2 Local Market Prices -- 3.3 Local
Market Efficiency -- 3.4 Local Market Returns and Outcome Stability --
4 Conclusion and Future Work -- References -- The Power of Analytics
in Epidemiology for COVID 19 -- 1 Introduction -- 1.1 Contributions

-- 1.2 Literature Review -- 2 Predicting COVID-19 Detected Cases --
2.1 An Aggregate Predictive Method: MIT-Cassandra -- 3 Results
with Actual COVID-19 Data -- 3.1 Data Sources and Feature Spaces --
3.2 Model Predictions -- 4 From Detected Cases to True Prevalence --
5 Application to Vaccine Allocation -- 5.1 Model Formulation -- 5.2
Intuition on the Vaccine Allocation Policy -- 5.3 Results with Actual
COVID-19 Data -- 6 Impact and Conclusion -- 6.1 CDC Benchmark --
6.2 Conclusion -- References -- Electric Vehicle Battery Charging
Scheduling Under the Battery Swapping Mode -- 1 Introduction -- 2
Literature Review.
3 Centralized Battery Charging and Optimized Scheduling Model.
