

1. Record Nr.	UNINA9910556883303321
Titolo	Cloud computing : 11th EAI International Conference, CloudComp 2021, virtual event, December 9-10, 2021, proceedings // edited by Mohammad R. Khosravi, Qiang He, Haipeng Dai
Pubbl/distr/stampa	Cham, Switzerland : , : Springer, , [2022] ©2022
ISBN	3-030-99191-1
Descrizione fisica	1 online resource (241 pages)
Collana	Lecture Notes of the Institute for Computer Sciences, Social Informatics and Telecommunications Engineering ; ; v.430
Disciplina	004.6782
Soggetti	Cloud computing
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- Preface -- Organization -- Contents -- Data Analytics for Cloud Systems with Distributed Applications -- Load Quality Analysis and Forecasting for Power Data Set on Cloud Platform -- 1 Introduction -- 2 Analysis and Improvement of Power Data -- 2.1 Classification and Comparison of Common Power Data Sets -- 2.2 The Function of Electric Power Data Set -- 2.3 Methods of Improving Data Quality -- 3 Data Prediction -- 3.1 ARIMA Model -- 3.2 LSTM Model -- 3.3 Experimental Results and Evaluation -- 4 Conclusion -- References -- A Survey of Traffic Prediction Based on Deep Neural Network: Data, Methods and Challenges -- 1 Introduction -- 2 Classification of Traffic Data -- 2.1 Spatial Static Time Dynamic Data -- 2.2 Spatio-Temporal Dynamic Data -- 3 Deep Neural Networks for Traffic Prediction -- 3.1 A Traffic Forecasting Method Based on CNN -- 3.2 A Traffic Forecasting Method Based on RNN -- 3.3 A Traffic Forecasting Method Based on the Hybrid Model -- 4 Challenges -- 5 Conclusions -- References -- A Dynamic Gesture Recognition Control File Method Based on Deep Learning -- 1 Introduction -- 2 Construction of PyTorch Model, YOLOv4 and Realization of Control Algorithm -- 2.1 PyTorch Model -- 2.2 Introduction to YOLO -- 2.3 Control Algorithm -- 3 Experiment and Result Analysis -- 3.1 Experimental Platform and Data Set -- 3.2 Network Training -- 3.3 Result Analysis -- 4 Conclusion -- References

-- A Lightweight FCNN-Driven Approach to Concrete Composition Extraction in a Distributed Environment -- 1 Introduction -- 2 Methods -- 2.1 Three Layer Model-L2R (= 0.001) Overall Network Architecture -- 2.2 Back Propagation (BP) Algorithm -- 2.3 Baseline Model -- 3 Deep Learning Distributed System -- 4 Experiment and Analysis -- 4.1 Datasets -- 4.2 Evaluation Metrics -- 4.3 Model Performance -- 5 Conclusion -- References.

Triangle Coordinate Diagram Localization for Academic Literature Based on Line Segment Detection in Cloud Computing -- 1 Introduction -- 2 Related Work -- 3 Triangle Coordinate Diagram Localization -- 3.1 Gaussian Filter and Sobel Operator -- 3.2 Line Segment Detector -- 3.3 Line Segment Merging -- 3.4 Diagram Localization -- 4 Experiment -- 4.1 Dataset -- 4.2 Experimental Method -- 4.3 Experimental Results and Numerical Analysis -- 5 Conclusion -- References -- Optimizing Fund Allocation for Game-Based Verifiable Computation Outsourcing

-- 1 Introduction -- 2 System Architecture -- 3 Optimization Problem -- 4 Setting I: Server S vs Single Client C_i -- 4.1 Client's Optimization Problem -- 4.2 Server's Optimization Problem -- 4.3 Proposed Algorithm -- 4.4 Analysis -- 5 Setting II: Server S vs Clients $C_1, @, C_m$ -- 5.1 Algorithm -- 5.2 Analysis -- 6 Conclusions and Future Works -- References -- A Survey of Face Image Inpainting Based on Deep Learning -- 1 Introduction -- 2 Face Inpainting Method Based on Deep Learning -- 2.1 Attention-Based Image Inpainting -- 2.2 Semantic-Based Image Inpainting -- 2.3 Progressive-Based Image Inpainting -- 3 Datasets and Evaluation Indicators -- 3.1 Dataset -- 3.2 Evaluating Indicator -- 4 Conclusion -- References -- Cloud Architecture and Challenges in Real-World Use -- Layered Service Model Architecture for Cloud Computing -- 1 Introduction -- 2 Important Terms and Definitions -- 2.1 Cloud Computing -- 2.2 Cloud Service Provider or CSP -- 2.3 Infrastructure as a Service or IaaS -- 2.4 Platform as a Service or PaaS -- 2.5 Software as a Service or SaaS -- 2.6 Serverless Computing -- 2.7 Containers and Containers as a Service (CaaS) -- 3 Need to Think Beyond IaaS, PaaS, and SaaS -- 3.1 Serverless vs IaaS, PaaS, and SaaS -- 3.2 CaaS vs IaaS, PaaS, and SaaS -- 4 Existing Approaches and the Need for New Approach.

4.1 XaaS (Anything as a Service) -- 4.2 Johan Den Haan Framework for Categorizing Cloud Services -- 5 Proposed Architecture -- 5.1 Preview -- 5.2 Design Methodology and Trends -- 5.3 Architecture Explanation -- 5.4 Layers Explanation and Criteria -- 6 Plotting Cloud Products in the Proposed Architecture -- 7 Future Research Directions -- 8 Conclusion -- References -- KPG4Rec: Knowledge Property-Aware Graph for Recommender Systems -- 1 Introduction -- 2 Preliminary and Overview -- 2.1 Knowledge Graph (KG) -- 2.2 Node2vec Mechanism -- 2.3 Locality Sensitive Hashing (LSH) -- 2.4 Problem Formulation -- 3 Methodology -- 3.1 Construction of Property-Aware Graphs -- 3.2 Generation of Property-Aware Vectors -- 3.3 Regeneration of User Preference Sequence with LSH -- 3.4 Prediction Module -- 4 Experiments -- 4.1 Datasets -- 4.2 Evaluation Metrics -- 4.3 Impact of Parameters -- 4.4 Performance Evaluation -- 4.5 Evaluation of Different Properties -- 5 Related Work -- 5.1 Random Walk Algorithm -- 5.2 Recommendations Using Knowledge Graph -- 6 Conclusion -- References -- ERP as Software-as-a-Service: Factors Depicting Large Enterprises Cloud Adoption -- 1 Introduction -- 2 Literature Review -- 3 Research Method -- 4 Results -- 4.1 Service Quality -- 4.2 Costs -- 4.3 Technical Limitations -- 4.4 Cloud Characteristics -- 5 Discussion and Conclusions -- References -- Design of an Evaluation System of Limb Motor Function Using Inertial Sensor -- 1 Introduction -- 2 Design of the Rehabilitation Assessment

Module -- 2.1 General Structure Design -- 2.2 Realization of Upper Limb Real Time Motion Simulation -- 3 Discussion -- 4 Conclusion -- References -- Towards a GPU-Accelerated Open Source VDI for OpenStack -- 1 Motivation -- 2 Related Work -- 2.1 GPU Virtualization -- 2.2 Video Encoding and Decoding -- 2.3 Remote Desktop Transport -- 2.4 Preliminary Work in bwLehrpool.

2.5 OpenStack - Basis and Missing Pieces -- 3 Proposed System Architecture -- 4 Work Program and Planned Efforts -- 5 Conclusion and Outlook -- References -- Security in Cloud/Edge Platforms -- Trustworthy IoT Computing Environment Based on Layered Blockchain Consensus Framework -- 1 Introduction -- 2 Related Works -- 3 Trustworthy IoT Model with Integrated Blockchain -- 3.1 System Model Overview -- 3.2 Build a Two-Layer Blockchain for the IoT -- 4 Layered Chained BFT (LCBFT) Consensus Mechanism -- 4.1 Overview of the HotStuff -- 4.2 Consensus and Block Generation in Energy-Constrained Part -- 4.3 Global Blockchain Consensus and Joining Blocks onto the Chain -- 4.4 Liveness Mechanism of Consensus Process -- 5 Microservice-Based Consensus Protocol Deployment Plan -- 6 Evaluation -- 6.1 Computational Structure of the Two Consensus Mechanisms -- 6.2 Energy Consumption Analysis of Two Consensus Mechanism -- 7 Conclusion -- References -- Heuristic Network Security Risk Assessment Based on Attack Graph -- 1 Introduction -- 2 Related Work -- 3 Heuristic Network Security Risk Assessment Based on Attack Graph -- 3.1 Attack Graph -- 3.2 Heuristic Graph Arborescences of Maximum Weight Generation Algorithm -- 3.3 Heuristic Attack Path Finding Algorithm for Maximum Risk -- 3.4 Node Importance Evaluation Based on ISM -- 4 Experimental Settings and Results -- 4.1 Experimental Environment -- 4.2 Experimental Results -- 5 Conclusion -- References -- Research on Network Security Automation and Orchestration Oriented to Electric Power Monitoring System -- 1 Introduction -- 2 Related Work -- 2.1 Anomaly Detection -- 2.2 Active Defense -- 3 Research Motivation -- 4 An Active Defense System Framework Design -- 4.1 The Behavioral Feature Extraction of Typical Network Security Events -- 4.2 The Security Disposal Strategy Generation of Typical Network Security Events. 4.3 The Automation Orchestration of Security Disposal Strategies -- 5 A Case Study -- 6 Conclusion and Future Work -- References -- Energy- and Reliability-Aware Computation Offloading with Security Constraints in MEC-Enabled Smart Cities -- 1 Introduction -- 2 Related Work -- 3 System Model -- 3.1 Network System Model -- 3.2 Workflow Applications Model -- 3.3 Energy Consumption Model -- 3.4 Resource Utilization Model -- 3.5 Reliability Model -- 3.6 Privacy Preservation Model -- 3.7 Problem Formulation -- 4 Energy- and Reliability-Aware Multi-objective Optimization Method with Security Constraint (ERMOS) -- 5 Experimental Evaluation -- 5.1 Experimental Setting -- 5.2 Experimental Result and Discussion -- 6 Conclusion -- References -- A Review of Cross-Blockchain Solutions -- 1 Introduction -- 2 Mature Cross-Blockchain Solutions -- 2.1 Notary Schemes -- 2.2 Sidechain/Relay -- 2.3 Hash-Locking -- 3 Innovative Cross-Blockchain Solutions -- 3.1 DexTT -- 3.2 Blockchain Router -- 3.3 Satellite Chain -- 3.4 HyperService -- 4 Industrial Solutions -- 4.1 Cosmos -- 4.2 Polkadot -- 4.3 Aion -- 4.4 Wanchain -- 4.5 Lisk -- 4.6 Ark -- 4.7 Metronome -- 5 Conclusion -- References -- Author Index.
