

1. Record Nr.	UNINA9910869181703321
Autore	Gervasi Osvaldo
Titolo	Computational Science and Its Applications - ICCSA 2024 : 24th International Conference, Hanoi, Vietnam, July 1-4, 2024, Proceedings, Part II
Pubbl/distr/stampa	Cham : , : Springer International Publishing AG, , 2024 ©2024
ISBN	3-031-64608-8
Edizione	[1st ed.]
Descrizione fisica	1 online resource (486 pages)
Collana	Lecture Notes in Computer Science Series ; ; v.14814
Altri autori (Persone)	MurganteBeniamino GarauChiara TaniarDavid C. RochaAna Maria A Faginas LagoMaria Noelia
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di contenuto	Intro -- Preface -- Welcome Message from Organizers -- Organization -- Plenary Lectures -- Harnessing Artificial Intelligence for Enhanced Spatial Analysis of Natural Hazard Assessments -- Software Engineering Research in a New Situation -- Interpretability and Privacy Preservation in Large Language Models (LLMs) -- Contents - Part II -- Contents - Part I -- High Performance Computing and Networks -- e-CLAS: Effective GPUDirect I/O Classification Scheme -- 1 Introduction -- 2 Motivation -- 3 Implementation Details -- 3.1 System Architecture -- 3.2 e-CLAS Collection Process -- 3.3 I/O Categorization -- 3.4 I/O Reconstruction Process -- 4 Performance Evaluation -- 5 Conclusion -- References -- A Real-Time Visualization Tool of Hardware Resources for Flutter Applications -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Frame per Second (FPS) Counter -- 3.2 Memory Usage -- 3.3 Network Traffic -- 3.4 Customization Parameters -- 4 Experimental Results -- 4.1 Sample Test Application -- 4.2 Wonderous -- 4.3 OpenLeaf -- 5 Conclusion and Future Works -- References -- Optimizing Cloud-Fog Workloads: A Budget Aware Dynamic Scheduling

Solution -- 1 Introduction -- 2 Related Studies -- 3 System Architecture -- 4 Problem Domain -- 4.1 Problem Formulation -- 4.2 Task Scheduling Solution -- 5 Implementation and Analysis -- 5.1 Experimental Settings -- 5.2 Experimental Results -- 6 Conclusion -- References -- Information Systems and Technologies -- A Process to Identify Players' Motivational Profiles for Designing a Gamification Project -- 1 Introduction -- 2 Literature Review -- 3 The Process -- 3.1 Subprocess: Eliciting Motivational Profile Through Judges (S1) -- 3.2 Subprocess: Eliciting Motivational Profile with Game Dynamics (S2) -- 3.3 Subprocess: Eliciting Motivational Profile Through a Motivation Inventory (S3).

4 Testing the Process in a Complex Domain -- 4.1 Stage 1: Characterize the Application Domain of Gamification -- 4.2 Stage 2: Define the Target Audience -- 4.3 Stage 3: Execute Motivational Profile Elicitation Strategies -- 4.4 Stage 4: Unify the Motivational Profile -- 5 Discussion -- 6 Conclusion -- References -- The Effectiveness of Using AutoML in Electricity Theft Detection: The Impact of Data Preprocessing and Balancing Techniques -- 1 Introduction -- 2 AutoML -- 2.1 H2O AutoML Platform -- 2.2 TPOT AutoML Platform -- 3 Data Preprocessing and Feature Engineering -- 4 Data Balancing -- 5 Electricity Theft Predictions: The Proposed System Model -- 6 Experimental Results: Assessment -- 7 Discussion and Conclusion -- References -- On the Use of Predictive Deep Learning Approaches in the Frequency and Uniqueness-Based Representation of Sequential Browsing Events -- 1 Introduction -- 2 Fundamental Concepts and Literature Survey -- 2.1 Embedding Approaches -- 2.2 Other Embedding Methods -- 3 Methodology -- 3.1 An Overview of the ML Business Process -- 3.2 A Novel Methodology for Generating User Sequences -- 4 Proposed Framework Implementation -- 5 Experimental Work -- 6 Conclusions and Future Work -- References -- MPCD: An Algorithm for Discovering Multilevel Prevalent Co-location Patterns from Heterogeneous Distribution of Spatial Datasets -- 1 Introduction -- 2 Related Work -- 3 Proposed Method -- 3.1 Construction of Density-Wise Clusters -- 3.2 Multi-level SPCP Mining from Clusters -- 4 Experiments and Analysis -- 4.1 Experiments on Synthetic Datasets -- 4.2 Experiments on Real Datasets -- 5 Conclusion -- References -- Leveraging Wav2Vec2.0 for Kazakh Speech Recognition: An Experimental Study -- 1 Introduction -- 2 Background and Related Work -- 2.1 Wav2Vec 2.0 and XLSR-53 -- 2.2 Kazakh ASR -- 3 Materials and Method -- 3.1 Dataset -- 3.2 Methods.

4 Result and Discussion -- 5 Conclusion -- References -- The 2018 Brazilian Presidential Run-Off: A Complex Network Analysis Approach Using Twitter Data -- 1 Introduction -- 1.1 Political Polarization -- 1.2 The Brazilian Political Scenario -- 2 Related Work -- 3 Methodology -- 3.1 The Abstraction Model -- 3.2 Dataset and Preprocessing -- 4 Methods -- 4.1 Centrality Metrics -- 4.2 Community Detection -- 5 Results -- 5.1 Network Basic Features -- 5.2 Authorship Relations -- 5.3 Top 50 -- 5.4 Communities -- 6 Conclusions -- References -- A Descriptive and Predictive Analysis Tool for Criminal Data: A Case Study from Brazil -- 1 Introduction -- 2 Related Work -- 3 Criminal Analysis Tool -- 3.1 Scenario Filtering -- 3.2 Trend Analysis -- 3.3 Distributions Analysis -- 3.4 Temporal Heat Map -- 3.5 Layered Event Map -- 3.6 Regression Models -- 4 Experimental Evaluation -- 4.1 Data Characterization -- 4.2 Case Study -- 5 Conclusions -- References -- Approach to the Formation and Visualization of the Competency Profile of the Staff of Organizations Using the UGVA Method -- 1 Introduction -- 2 Existing Solutions -- 3 Method -- 3.1 Conceptualization of the Subject Area -- 3.2 The Model of the Profile of

Research and Teaching Staff of the Department -- 3.3 Methodological Approach to Visualization -- 4 Case Study -- 5 Data Analysis and Results -- 6 Conclusion -- References -- Elevating Wearable Sensor Authentication with Hybrid Deep Learning and Squeeze-and-Excitation -- 1 Introduction -- 2 Related Works -- 2.1 Continuous Authentication -- 2.2 Deep Learning in Continuous Authentication -- 3 The Sensor-Based Continuous Authentication Framework -- 3.1 HMOG Dataset -- 3.2 Data Pre-processing -- 3.3 Training Deep Learning Models -- 3.4 Performance Measurement Criteria -- 4 Experiments and Research Findings -- 4.1 Experimental Setting.

4.2 Experimental Results and Discussion -- 5 Conclusion and Future Works -- References -- Applying LSTM Recurrent Neural Networks to Predict Revenue -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Dataset -- 3.2 Model Development -- 3.3 Model Evaluation -- 4 Experimental Analysis -- 4.1 Algorithm and Computational Environment Configuration -- 4.2 Analysis Criteria -- 4.3 Results -- 4.4 Discussion -- 5 Conclusion -- References -- Incentivizing Honesty in Online Decentralized Markets -- 1 Introduction -- 2 Buyers' and Sellers' Dilemma -- 3 Literature Review - Phase 1 -- 3.1 Trust Network -- 3.2 Arbitrator -- 3.3 Payment Guarantee -- 3.4 Overall -- 4 Tagging OpenBazaar Historical Data - Phase 2 -- 4.1 OpenBazaar -- 4.2 Dataset -- 4.3 Manually Tagging Transactions -- 5 Honesty Incentive Models - HIMs -- 5.1 Trust Network - T -- 5.2 Trust Network + Arbitrator - TA -- 5.3 Trust Network + Payment Guarantee - TP -- 6 Experiment Results - Phase 3 -- 6.1 Trust Network only - T -- 6.2 Trust Network + Decentralized Arbitrator - TA -- 6.3 Trust Network + Payment Guarantee - TP -- 6.4 Answering the RQ and Threats to Validation -- 7 Conclusions and Future Work -- 7.1 Conclusions -- 7.2 Challenges for Future Work -- References -- Boosted HP Filter: Several Properties Derived from Its Spectral Representation -- 1 Introduction -- 2 Preliminaries -- 3 Spectral Representation of the bHP Filter -- 4 Several Properties of the bHP Filter -- 5 Concluding Remarks -- References -- MiSIS: An HL7 FHIR Middleware for Healthcare Information Systems -- 1 Introduction -- 2 Related Works -- 3 MiSIS: A Middleware Based on the HL7 FHIR Standard for Healthcare Information Systems -- 3.1 Solution Requirements -- 3.2 Solution Architecture -- 3.3 Solution Development -- 4 Studies on the Use and Evaluation of MiSIS -- 4.1 Analysis of Proofs of Concept.

4.2 Performance Test Analysis -- 5 Conclusions and Future Work -- References -- A Novel Leak Localization Method for Water Pipeline Systems Based on Acoustic Emission Monitoring and Event Correlation -- 1 Introduction -- 2 Background Concepts -- 2.1 Constant False Alarm Rate Detection -- 2.2 Minimum Entropy Deconvolution -- 3 Methodology -- 4 Experimental Setup -- 5 Results and Discussion -- 6 Conclusion -- References -- Maintaining the Quality of Evolving Ontologies in the Agriculture Domain: Challenges and a Specialised Evaluation Tool -- 1 Introduction -- 2 Related Work -- 3 The OntoQuaL Tool -- 3.1 Complexity Measures -- 3.2 Modularity Measures -- 3.3 Consistency Measures -- 3.4 Completeness Measures -- 3.5 Comprehensibility Measures -- 4 Evaluation and Discussion -- 4.1 Evaluation of the Developed Measures of Characteristics -- 4.2 Tool Experiments with an Agriculture Ontology -- 4.3 Future Works -- 5 Conclusion -- References -- Diverse Bagging Effort Estimation Model for Software Development Project -- 1 Introduction -- 2 Literature Review -- 3 Methodology -- 3.1 Stage 1: Data Collection -- 3.2 Stage 2: Data Preprocessing -- 3.3 Stage 3: Hyperparameter Tuning -- 3.4 Stage 4: Construction of Proposed Model (DBEEST) -- 3.5 Stage 5: Proposed Model Evaluation Criteria -- 4 Results and Discussion -- 4.1

Performance of Models -- 5 Conclusion and Future Work -- References
-- Integrating Dual Strengths: A Hybrid Architecture Merging
Decentralized Trust with Server-Side Efficiency for Enhanced Secure
Transactions -- 1 Introduction -- 2 Literature Survey -- 3 Preliminary
Background -- 4 Proposed System -- 4.1 System Overview -- 4.2
Comparison with Existing Blockchain Enhanced QR Designs -- 4.3
Choice of Architecture -- 5 Implementation -- 5.1 Client-Side -- 5.2
Server-Side -- 6 Experimental Results -- 7 Limitations -- 8 Conclusion
and Future Work.
References.
