



Advanced Intelligent Computing Technology and Applications : 20th International Conference, ICIC 2024, Tianjin, China, August 5-8, 2024, Proceedings, Part III /

Huang, De-Shuang.,

editor.

edt.

<http://id.loc.gov/vocabulary/relators/edt>

Si, Zhanjun.,

editor.

edt.

<http://id.loc.gov/vocabulary/relators/edt>

Pan, Yijie.,

editor.

edt.

<http://id.loc.gov/vocabulary/relators/edt>

Monografía

This 13-volume set LNCS 14862-14874 constitutes - in conjunction with the 6-volume set LNAI 14875-14880 and the two-volume set LNBI 14881-14882 - the refereed proceedings of the 20th International Conference on Intelligent Computing, ICIC 2024, held in Tianjin, China, during August 5-8, 2024. The total of 863 regular papers were carefully reviewed and selected from 2189 submissions. This year, the conference concentrated mainly on the theories and methodologies as well as the emerging applications of intelligent computing. Its aim was to unify the picture of contemporary intelligent computing techniques as an integral concept that highlights the trends in advanced computational intelligence and bridges theoretical research with applications. Therefore, the theme for this conference was "Advanced Intelligent Computing Technology and Applications". Papers that focused on this theme were solicited, addressing theories, methodologies, and applications in science and technology

Título: Advanced Intelligent Computing Technology and Applications 20th International Conference, ICIC 2024, Tianjin, China, August 5-8, 2024, Proceedings, Part III edited by De-Shuang Huang, Zhanjun Si, Yijie Pan

Edición: 1st ed. 2024

Editorial: Singapore Springer Nature Singapore Imprint: Springer 2024

Descripción física: 1 online resource (XVIII, 519 p. 268 illus., 184 illus. in color.)

Mención de serie: Lecture Notes in Computer Science 1611-3349 14864

Contenido: Intro -- Preface -- Organization -- Contents- Part III -- Neural Networks -- Trust Evaluation with Deep Learning in Online Social Networks: A State-of-the-Art Review -- 1 Introduction -- 2 Analysis and Comparison of Related Work -- 2.1 Graph-Based Neural Networks -- 2.2 Other Deep Learning Method -- 3 Challenges and Open Problems -- 4 Research Direction -- 4.1 Trust Evaluation Based on Ensemble Learning with DNN in OSNs -- 4.2 Cross-Origin Trust Evaluation Based on Deep Learning with a Hyperparameter Auto Optimizer in OSNs -- 5 Conclusion -- References -- Deep Neural Network-Based Intrusion Detection in Internet of Things: A State-of-the-Art Review -- 1 Introduction -- 2 Analysis and Comparison of Related Work -- 2.1 Network Traffic-Based Intrusion Detection -- 2.2 Device Behavior-Based Intrusion Detection -- 3 Challenges and Open Problems -- 4 Research Direction -- 4.1 An IDS Based on Federated Learning and Transfer Learning -- 4.2 An IDS Based on Explainable DNNs -- 5 Conclusion -- References -- CNN-SENet: A Convolutional Neural Network Model for Audio Snoring Detection Based on Channel Attention Mechanism -- 1 Introduction -- 2 Related Work -- 3 Methods -- 3.1 Convolutional Neural Networks -- 3.2 SENet -- 4 Experiment -- 4.1 Baseline -- 4.2 Datasets -- 4.3 Data Preprocessing -- 4.4 Evaluation Indicators -- 4.5 Experimental Results -- 5 Summary -- References -- Selecting Effective Triplet Contrastive Loss for Domain Alignment -- 1 Introduction -- 2 Related Work -- 3 Method -- 3.1 Problem Formulation and Notations -- 3.2 Triplet Contrastive Loss -- 3.3 Model Structure -- 4 Experimental Results -- 4.1 Datasets -- 4.2 Implementation Details -- 4.3 Results and Discussion -- 5 Conclusion -- References -- RCSnet -- Flower Classification Network Design Based on Transfer Learning and Channel Attention Mechanism -- 1 Introduction -- 2 Related Work -- 3 Methods -- 3.1 Residual Networks -- 3.2 SENet -- 3.3 Transfer Learning -- 4 Experiment -- 4.1 Baseline -- 4.2 Datasets -- 4.3 Data Preprocessing -- 4.4 Evaluation Indicators -- 4.5 Experimental Results -- 5 Summary -- References -- MDGCL: Message Dropout Graph Contrastive Learning for Recommendation -- 1 Introduction -- 2 Preliminaries -- 2.1 Graph Collaborative Filtering -- 2.2 Graph Contrastive Learning -- 3 Methodology -- 3.1 Analysis of Message Dropout -- 3.2 A Simplified Architecture for GCL -- 4 Experiments -- 4.1 Experimental Settings -- 4.2 Experimental Results -- 5 Conclusion -- References -- Improved CNN Model Using Innovative Adaptive-Drop Message for Gomoku Game -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Adaptive-Drop Message Method -- 3.2 Dilated Depthwise Separable Convolution -- 3.3 Residual Dense Block and SENet Module -- 3.4 Spatial Attention Module -- 3.5 Gomoku-Specific Output Layer -- 4 Experiments and Analysis -- 4.1 Experimental Setup -- 4.2 Game Experiment Results and Analysis -- 5 Conclusion -- References -- A Survey: Feature Fusion Method for Object Detection Field -- 1 Introduction -- 2 Feature Fusion Methods -- 2.1 Simple Topology Fusion Structure -- 2.2 Complex Topology Fusion Structure -- 2.3 Analysis and Summary -- 3 Datasets and Evaluation Indicators -- 3.1 Datasets -- 3.2 Evaluation Indicators -- 4 Trends and Challenges -- 5 Conclusion -- References -- Dual-Branch Collaborative Learning for Visual Question Answering -- 1 Introduction -- 2 Related Work -- 2.1 Visual Question Answering -- 2.2 Graph-Based Visual Relationship Reasoning -- 2.3 Collaborative Learning -- 3 Method -- 3.1 Overview -- 3.2 Question Representation and Image Representation -- 3.3 Relational Reasoning Branch -- 3.4 Attention Branch -- 3.5 Dual-Branch Collaborative Learning -- 3.6 Joint Predict -- 4 Experiments -- 4.1 Datasets and Implementation Detail -- 4.2 Ablation Experiment -- 4.3 Comparison with SOTAs -- 4.4 Qualitative Analysis -- 5 Conclusion -- References -- SCAI: A Spectral Data Classification Framework with Adaptive Inference for Rapid and Portable Identification of Chinese Liquors -- 1 Introduction -- 2 Methodology -- 2.1 SCAI: Early-Exit with Self-distillation -- 2.2 SCAI+: SCAI with PA-ResNet -- 3 Experiment -- 3.1 Experiment Instrument -- 3.2 Datasets -- 3.3 Baselines -- 3.4 Common Performance Result -- 3.5 Application Performance Result -- 3.6 Self-distillation Training Analysis -- 4 Conclusion -- References -- EfficientPose: A Lightweight and Efficient Model with Transformer for Human Pose Estimation -- 1 Introduction -- 2 Related Work -- 2.1 Human Pose Estimation -- 2.2 Atrous Convolution and ASPP -- 3 Methods -- 3.1 EfficientPose Architecture -- 3.2 Efficient Bottleneck Block (EBB) -- 3.3 Transformer Encoder -- 3.4 Iterative Training Strategy -- 4 Experiments -- 4.1 Implementation Results -- 4.2 Ablations -- 5 Conclusion -- References -- Enhanced Chinese Named Entity Recognition with Transformer-Based Multi-feature Fusion -- 1 Introduction -- 2

Related Work -- 2.1 Chinese NER Based on Lexical Enhancement -- 2.2 Chinese NER with Fusion of Glyph Features -- 2.3 Feature Fusion in Chinese NER -- 3 Method -- 3.1 Text Representation Layer -- 3.2 Sequence Encoding Layer -- 3.3 Sequence Decoding Layer -- 4 Experiments -- 4.1 Results and Analysis -- 5 Conclusion -- References -- YOLO-Fire: A Fire Detection Algorithm Based on YOLO -- 1 Introduction -- 2 YOLO-Fire -- 2.1 SimpleC3 -- 2.2 Dynamic Upsampler -- 2.3 Focal WIoU-Loss -- 3 Experiments -- 3.1 Implementation Details -- 3.2 Ablation Studies -- 3.3 Experimental Results Analysis -- 4 Conclusion -- References -- From Vision to Sound: The Application of ViT-LSTM in Music Sequence -- 1 Introduction 2 Related Work -- 3 Methods -- 3.1 Dataset Definition -- 3.2 Model Construction -- 4 Experiment -- 4.1 Data Processing -- 4.2 Performance Evaluation -- 5 Conclusion -- References -- Graph Convolution Recommendation Algorithm Integrating Multi-relationship Preferences -- 1 Introduction -- 2 Graph Convolution Recommendation Algorithm Integrating Multi-relationship Preferences -- 2.1 User Feature Embedding Propagation -- 2.2 Item Feature Embedding Propagation -- 2.3 Predict -- 2.4 Model Optimization -- 3 Experimental Design and Result Analysis -- 3.1 Experimental Data Set -- 3.2 Evaluation Indicators -- 3.3 Experimental Settings -- 3.4 Experimental Results -- 3.5 Ablation Analysis -- 4 Conclusion -- References -- Temporal Sequential Wave Neural Network for Solving the Optimal Cognitive Subgraph Query Problem -- 1 Introduction -- 2 Definition of the Problem -- 3 Temporal Sequential Wave Neural Network -- 3.1 Design of Temporal Sequential Wave Neural Network -- 3.2 TSWNN Algorithm -- 3.3 Time Complexity Analysis of TSWNN Algorithm -- 4 Example of TSWNN Algorithm -- 5 Experimentation -- 5.1 Experimental Results with Different Number of Nodes -- 5.2 Experimental Results with Different Number of Sides -- 5.3 Experimental Results with Different Limiting Times -- 6 Conclusion -- References -- Joint Prior Relation Enhancement and Non-autoregressive Decoding for Document-Level Event Extraction -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Entity Mention Recognition -- 3.2 Prior Relation Enhancement Encoding -- 3.3 Event Argument Combination Recognition -- 3.4 Event Type Detection -- 3.5 Event Record Extraction -- 4 Experiments -- 4.1 Datasets -- 4.2 Baselines and Metric -- 4.3 Main Results -- 4.4 Ablation Study -- 5 Conclusions -- References -- Intrusion Detection System Based on ViTCycleGAN and Rules -- 1 Introduction -- 2 Related Work 3 Methodologies -- 3.1 Cycle-Consistent Generative Adversarial Network (CycleGAN) -- 3.2 Vision Transformer -- 3.3 Intrusion Detection System: ViTCycleGAN -- 4 Experiments -- 4.1 Dataset -- 4.2 Data Preprocessing -- 4.3 Performance Evaluation of ViTCycleGAN Intrusion Detection System -- 5 Conclusion -- References -- DFT-3DLaneNet: Dual-Frequency Domain Enhanced Transformer for 3D Lane Detection -- 1 Introduction -- 2 Related Work -- 2.1 2D Lane Detection -- 2.2 3D Lane Detection -- 2.3 Frequency Domain Image Processing -- 3 Method -- 3.1 Frequency Domain Feature Extraction -- 3.2 Dual-Channel High-Frequency Feature Enhancement -- 3.3 Cross-channel Low-Frequency Attention -- 3.4 Dual-Frequency Domain Deformable Attention -- 3.5 Prediction and Loss -- 4 Experiment -- 4.1 Datasets and Metrics -- 4.2 Implementation Details -- 4.3 Comparisons with State-of-the-Arts -- 4.4 Ablation Studies -- 5 Conclusions -- References -- Correlation Matters: A Stock Price Predication Model Based on the Graph Convolutional Network -- 1 Introduction -- 2 Related Work -- 2.1 Stock Price Prediction -- 2.2 Graph Convolutional Network -- 3 Problem Formulation -- 4 StockGCN -- 4.1 Graph Construction -- 4.2 Framework of StockGCN -- 5 Experiments -- 5.1 Datasets -- 5.2 Preprocessing -- 5.3 Baselines -- 5.4 Result Analysis -- 5.5 Ablation Study -- 6 Conclusion -- References -- Coformer: Collaborative Transformer for Medical Image Segmentation -- 1 Introduction -- 2 Related Work -- 3 Method -- 3.1 Encoder -- 3.2 Multi-scale Representation Fusion Module (MRF) -- 3.3 Decoder -- 3.4 Loss Function -- 4 Experiments -- 4.1 Dataset -- 4.2 Implementation Details -- 4.3 Evaluation Results -- 5 Conclusion -- References -- FRMM: Feature Reprojection for Exemplar-Free Class-Incremental Learning -- 1 Introduction -- 2 Methods -- 2.1 Problem Statement and Framework -- 2.2 Feature Reprojection 2.3 Ensemble of Two Experts

ISBN: 981-9755-88-3

Materia: Computational intelligence Computer networks Machine learning Application software Computational Intelligence Computer Communication Networks Machine Learning Computer and Information Systems Applications

Autores: Huang, De-Shuang., editor. <http://id.loc.gov/vocabulary/relators/edt> Si, Zhanjun., editor. <http://id.loc.gov/vocabulary/relators/edt> Pan, Yijie., editor. <http://id.loc.gov/vocabulary/relators/edt>

Enlace a formato físico adicional: 981-9755-87-5

Punto acceso adicional serie-Título: Lecture Notes in Computer Science 1611-3349 14864

Baratz Innovación Documental

- Gran Vía, 59 28013 Madrid
- (+34) 91 456 03 60
- informa@baratz.es