

1. Record Nr.	UNINA9910851992303321
Titolo	Advances in Knowledge Discovery and Data Mining : 28th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2024, Taipei, Taiwan, May 7–10, 2024, Proceedings, Part II // edited by De-Nian Yang, Xing Xie, Vincent S. Tseng, Jian Pei, Jen-Wei Huang, Jerry Chun-Wei Lin
Pubbl/distr/stampa	Singapore : , : Springer Nature Singapore : , : Imprint : Springer, , 2024
ISBN	9789819722532 9819722535
Edizione	[1st ed. 2024.]
Descrizione fisica	1 online resource (XXXIV, 459 p. 145 illus., 138 illus. in color.)
Collana	Lecture Notes in Artificial Intelligence, , 2945-9141 ; ; 14646
Disciplina	006.3
Soggetti	Artificial intelligence Algorithms Education - Data processing Computer science - Mathematics Signal processing Computer networks Artificial Intelligence Design and Analysis of Algorithms Computers and Education Mathematics of Computing Signal, Speech and Image Processing Computer Communication Networks
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Intro -- General Chairs' Preface -- PC Chairs' Preface -- Organization -- Contents - Part II -- Deep Learning -- AdaPQ: Adaptive Exploration Product Quantization with Adversary-Aware Block Size Selection Toward Compression Efficiency -- 1 Introduction -- 2 Related Works -- 3 Preliminary -- 4 Methodology -- 4.1 Adaptive Exploration Quantization -- 4.2 Adversary-Aware Block Size Selection -- 5 Experiments -- 6 Conclusion -- References -- Ranking Enhanced

Supervised Contrastive Learning for Regression -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 Methodology -- 4.1 Motivation -- 4.2 Ranking Enhanced Supervised Contrastive Learning (RESupCon) -- 5 Experiments -- 5.1 Datasets -- 5.2 Baselines and Settings -- 5.3 Overall Performance -- 5.4 Comparison on Spearman's Rank Correlation Coefficients -- 5.5 Parameter Study and Loss Curve -- 6 Conclusion -- References

Treatment Effect Estimation Under Unknown Interference -- 1 Introduction -- 2 Related Work -- 3 Preliminaries -- 4 Proposed Method: Treatment Effect Estimation Under Unknown Interference -- 4.1 Covariate Representation Learner -- 4.2 Graph Structure Learner -- 4.3 Aggregation Function -- 4.4 Outcome Predictors and ITE Estimators -- 5 Experiments -- 5.1 Experiment Settings -- 5.2 Results -- 6 Conclusion -- A Identifiability of the Expectation of Potential Outcomes -- B HSIC -- C Implementation Details -- D Ablation Experiments -- References

A New Loss for Image Retrieval: Class Anchor Margin -- 1 Introduction -- 2 Related Work -- 3 Method -- 4 Experiments -- 4.1 Datasets -- 4.2 Experimental Setup -- 4.3 Results -- 5 Conclusion -- References

Personalized EDM Subject Generation via Co-factored User-Subject Embedding -- 1 Introduction -- 2 Related Work -- 3 Proposed Model -- 3.1 Retrieve and Re-rank -- 3.2 Variational Encoder and Bi-directional Selective Encoder. 3.3 User-Subject Co-factor System -- 3.4 User-Based Decoder -- 4 Experimental Results -- 4.1 Quantitative Results -- 4.2 Effect of Template -- 5 Conclusions and Future Work -- References

Spatial-Temporal Bipartite Graph Attention Network for Traffic Forecasting -- 1 Introduction -- 2 Related Work -- 3 Definitions and Problem Statement -- 3.1 Definitions -- 3.2 Problem Statement -- 4 Methodology -- 4.1 Data Inputs and Data Preprocessing -- 4.2 Encoder Decoder Architecture -- 4.3 Bipartite Graph Attention Layer -- 4.4 Heterogeneous Cross Attention Layers -- 5 Experiments -- 5.1 Experiment Setup -- 5.2 Comparison of Performance -- 5.3 Ablation Study -- 6 Conclusion and Future Works -- References

CMed-GPT: Prompt Tuning for Entity-Aware Chinese Medical Dialogue Generation -- 1 Introduction -- 2 Related Work -- 3 Datasets -- 4 Method -- 4.1 Pre-training Model -- 4.2 Medical Dialogue Generation Model -- 5 Experiments -- 5.1 Experimental Setting -- 5.2 Experimental Results -- 6 Conclusion -- References

MvRNA: A New Multi-view Deep Neural Network for Predicting Parkinson's Disease -- 1 Introduction -- 2 Related Work -- 3 Methods -- 3.1 Data Representation Based on Multiple Views -- 3.2 ResNet18 with BWH -- 3.3 Channel Attention Implemented Using SENet -- 4 Experiments and Results -- 4.1 Dataset -- 4.2 Experimental Settings -- 4.3 Experimental Results and Analysis -- 4.4 Ablation Experiment -- 5 Conclusion -- References

Path-Aware Cross-Attention Network for Question Answering -- 1 Introduction -- 2 Related Work -- 3 Task Definition -- 4 Method -- 4.1 Text Encoder and Path Encoder -- 4.2 Path-Aware Cross-Attention -- 4.3 Self-learning Based Path Scoring Method -- 4.4 Learning and Inference -- 5 Experiment -- 5.1 Dataset -- 5.2 Baseline Models -- 5.3 Main Result -- 6 Analysis -- 6.1 Ablation Studies -- 6.2 Model Interpretability. 6.3 Quantitative Analysis -- 7 Conclusion -- References

StyleAutoEncoder for Manipulating Image Attributes Using Pre-trained StyleGAN -- 1 Introduction -- 2 Related Work -- 3 Methodology -- 3.1 Preliminaries -- 3.2 StyleAutoEncoder -- 3.3 Discussion -- 4 Experiments -- 4.1 Evaluation Metrics -- 4.2 Models Implementation -- 4.3 Manipulation of Facial Features -- 4.4 Evaluation on Animal Faces -- 5 Conclusion -- References

SEE: Spherical Embedding

Expansion for Improving Deep Metric Learning -- 1 Introduction -- 2 Related Works -- 3 Method -- 3.1 Preliminary -- 3.2 Spherical Embedding Expansion -- 4 Experiments -- 4.1 Experiment Setting -- 4.2 Quantitative Results -- 4.3 Ablation Studies -- 5 Conclusion -- References -- Multi-modal Recurrent Graph Neural Networks for Spatiotemporal Forecasting -- 1 Introduction -- 2 Related Work -- 3 Methods -- 3.1 Problem Formulation -- 3.2 Model Design -- 4 Experiments -- 4.1 Model Baselines -- 4.2 Primary Results -- 4.3 Ablation Study -- 5 Conclusions -- 7 Appendix -- References -- Layer-Wise Sparse Training of Transformer via Convolutional Flood Filling -- 1 Introduction -- 2 Background and Related Work -- 2.1 Transformer -- 2.2 Related Work on Sparse Attention -- 3 Motivation: Analysis of Sparse Patterns in MHA -- 4 SPION: Layer-Wise Sparse Attention in Transformer -- 4.1 Overview of SPION -- 4.2 Sparsity Pattern Generation with Convolutional Flood Fill Algorithm -- 5 Experimental Evaluation -- 5.1 Performance Evaluation -- 5.2 Computational Complexity Analysis -- 6 Conclusion -- References -- Towards Cost-Efficient Federated Multi-agent RL with Learnable Aggregation -- 1 Introduction -- 2 Preliminary -- 3 Federated MARL with Learnable Aggregation -- 4 Convergence Analysis -- 5 Experiments -- 6 Related Work -- 7 Conclusion -- References. LongStory: Coherent, Complete and Length Controlled Long Story Generation -- 1 Introduction -- 2 Related Works -- 2.1 Neural Story Generation -- 2.2 Recursive Models -- 2.3 Automatic Metrics -- 3 Methodology -- 3.1 Task Description -- 3.2 Long and Short Term Contexts Weight Calibrator(CWC) -- 3.3 Long Story Structural Positions (LSP) -- 3.4 Base Pretrained Model -- 4 Experiments -- 4.1 Experiments Set-Up -- 4.2 Experimental Results -- 4.3 Further Analysis -- 5 Conclusion -- References -- Relation-Aware Label Smoothing for Self-KD -- 1 Introduction -- 2 Related Work -- 3 Our Approach -- 3.1 RAS-KD -- 4 Experimental Results -- 5 Ablation Study -- 6 Conclusion -- References -- Bi-CryptoNets: Leveraging Different-Level Privacy for Encrypted Inference -- 1 Introduction -- 2 Relevant Work -- 3 Our Bi-CryptoNets -- 3.1 The Bi-branch of Neural Network -- 3.2 The Unidirectional Connections -- 3.3 The Feature Integration -- 4 Knowledge Distillation for Bi-CryptoNets -- 5 Experiments -- 6 Conclusion -- References -- Enhancing YOLOv7 for Plant Organs Detection Using Attention-Gate Mechanism -- 1 Introduction -- 2 Related Work -- 2.1 Attention-Gate Mechanism -- 3 YOLOv7 with Attention-Gate Mechanism -- 4 Experiments -- 4.1 Experiment Materials -- 4.2 Evaluation Metrics -- 4.3 Experimental Results -- 5 Conclusion -- References -- On Dark Knowledge for Distilling Generators -- 1 Introduction -- 2 Preliminary -- 3 Theoretical Analysis of Dark Knowledge in Distilling the Generator -- 3.1 Dark Knowledge of Generators -- 3.2 Distillation Empirical Risk -- 3.3 Generalization of the Student Generator -- 3.4 Impact of Probability Approximation -- 4 DKtill: Extracting Dark Knowledge for Training Student Generator -- 4.1 Extracting from Probabilistic Generators -- 4.2 Extracting from Non-probabilistic Generators -- 5 Empirical Illustration -- 5.1 Setting. 5.2 Distilling Probabilistic Generators -- 5.3 Distilling Non-probabilistic Generators -- 5.4 Small Generators Through DKtill -- 6 Related Work -- 7 Conclusion -- References -- RPH-PGD: Randomly Projected Hessian for Perturbed Gradient Descent -- 1 Introduction -- 2 Preliminary -- 2.1 Notation -- 2.2 Methods to Escape from Saddle Points -- 2.3 Perturbed Gradient Descent -- 3 Algorithms -- 3.1 Randomly Projected Hessian -- 3.2 Shifted Randomly Projected Hessian -- 3.3 RPH-PGD -- 4 Experiments -- 5 Conclusion and Future Work -- References -- Transformer based Multitask Learning for Image

Captioning and Object Detection -- 1 Introduction -- 2 Related Work -- 3 Proposed Method -- 3.1 Objective Function -- 4 Experimental Setup -- 5 Results -- 5.1 Comparison and Analysis -- 5.2 Ablation Studies -- 6 Conclusion -- References -- Communicative and Cooperative Learning for Multi-agent Indoor Navigation -- 1 Introduction -- 2 Related Work -- 3 Cooperative Indoor Navigation Task -- 3.1 Task Definition -- 3.2 Multi-agent Indoor Navigation Environment -- 3.3 Data Collection -- 4 Cooperative Indoor Navigation Models -- 4.1 Preliminaries -- 4.2 Framework -- 5 Experiment -- 5.1 Benchmarking CIN with MARL Models -- 5.2 Implementation Details -- 5.3 Evaluation Metrics -- 5.4 Quantitative and Qualitative Results -- 6 Conclusion -- References -- Enhancing Continuous Domain Adaptation with Multi-path Transfer Curriculum -- 1 Introduction -- 2 Methodology -- 2.1 Preliminary -- 2.2 Method Framework -- 2.3 Wasserstein-Based Transfer Curriculum -- 2.4 Multi-path Optimal Transport -- 3 Experimental Results -- 3.1 Datasets and Experimental Configurations -- 3.2 Analysis of Wasserstein-Based Transfer Curriculum -- 3.3 Adaptation Comparison Results -- 3.4 Ablation Study -- 4 Conclusion -- References -- Graphs and Networks. Enhancing Network Role Modeling: Introducing Attributed Multiplex Structural Role Embedding for Complex Networks.

Sommario/riassunto

The 6-volume set LNAI 14645-14650 constitutes the proceedings of the 28th Pacific-Asia Conference on Knowledge Discovery and Data Mining, PAKDD 2024, which took place in Taipei, Taiwan, during May 7–10, 2024. The 177 papers presented in these proceedings were carefully reviewed and selected from 720 submissions. They deal with new ideas, original research results, and practical development experiences from all KDD related areas, including data mining, data warehousing, machine learning, artificial intelligence, databases, statistics, knowledge engineering, big data technologies, and foundations.
