OMB No. 2096647792551

Disentangled Representation Learning Gan For Pose

Disentangled Representation Learning GAN for Pose-Invariant Face Recognition AMAAI Webinar - Disentangled representation learning by GM-VAEs by Yin-Jyun Luo Transformation GAN for Unsupervised Image Synthesis and Representation Learning Self-Supervised GANs MLJejuCamp - Sanghoon Yoon : ChangeGAN: Replaceable Representation Learning with GAN GANs \u0026 Unsupervised Representation Learning 'Disentangled' by Pete Howells RS-013: Disentangled Representation Learning Learning to Decompose and Disentangle Representations for Video Prediction CycleGAN Explained in 5 Minutes! Understanding the Purpose of Generator and Discriminator in a GAN Raiders of the Pottery GAN: Using 3D Generative Adversarial Networks for Data Augmentation | SciPy SANE2017: Aäron van den Oord: Neural Discrete Representation Learning Variational Autoencoders StyleGAN Paper Explained Learning Disentangled Phone and Speaker Representations in a Semi-Supervised VQ-VAE Paradigm What are GANs (Generative Adversarial Networks)? UNSUPERVISED LEARNING OF DISENTANGLED SPEECH CONTENT AND STYLE REPRESENTATION - (3 minutes intro

Image and Graphics

Machine Learning Approaches for Urban Computing

28th International Conference on Artificial Neural Networks, Munich, Germany, September 17–19, 2019, Proceedings

15th European Conference, Munich, Germany, September 8–14, 2018, Proceedings, Part III

Synthetic Data for Deep Learning

Deep Learning in Biometrics

Facial Multi-characteristics And Applications

Advances and Challenges

15th International Symposium, ISVC 2020, San Diego, CA, USA, October 5–7, 2020, Proceedings, Part I

Proceedings of ICABDE 2021

Artificial Neural Networks and Machine Learning – ICANN 2019: Workshop and Special Sessions

Biometric Recognition

Recognition and Perception of Images

Algorithms, Applications, and Technologies
Data Management and Analysis
16th European Conference, Glasgow, UK, August 23–28, 2020, Proceedings, Part XXVI

Disentangled Representation Learning Gan For Pose ***OMB No. 2096647792551 edited by***

ANDREW MAREN

Image and Graphics

CRC Press
This two-volume set constitutes the proceedings of the 5th Asian Conference on ACPR 2019, held in Auckland, New Zealand, in November 2019. The 9 full papers presented in this volume were carefully reviewed and selected from 14 submissions. They cover topics such as: classification; action and video and motion; object detection and anomaly detection; segmentation, grouping and shape; face and body and biometrics; adversarial learning and networks; computational photography; learning theory and optimization; applications, medical and robotics; computer vision and robot vision; pattern recognition and machine learning; multi-media and signal processing and interaction.

Machine Learning Approaches for Urban Computing

John Wiley & Sons
This book constitutes the proceedings of the 15th International Workshop on Knowledge Management and Acquisition for Intelligent Systems, PKAW 2018, held in Nanjing, China, in August 2018. The 15 full papers and 7 short papers included in this volume were carefully reviewed and selected from 51 initial submissions. They cover the methods and tools as well as the applications related to developing a knowledge base, healthcare, financial systems, and intelligent systems.

28th International Conference on Artificial Neural Networks, Munich, Germany, September 17–19, 2019, Proceedings

Springer Nature
With the increasing demand of robots for industrial and domestic use, it becomes indispensable to ensure their safety, security, and reliability. Safety, Security and Reliability of Robotic Systems: Algorithms, Applications, and Technologies provides a broad and comprehensive coverage of the evolution of robotic systems, as well as industrial statistics and future forecasts. First, it analyzes the safety-related parameters of these systems. Then, it covers security attacks and related countermeasures, and how to establish reliability in these systems. The later sections of the book then discuss various applications of these systems in modern industrial and domestic settings. By the end of this book, you will be familiarized with the theoretical frameworks, algorithms, applications, technologies, and empirical research findings on the safety, security, and reliability of robotic systems, while the book’s modular structure and comprehensive material will keep you interested and involved throughout. This

book is an essential resource for students, professionals, and entrepreneurs who wish to understand the safe, secure, and reliable use of robotics in real-world applications. It is edited by two specialists in the field, with chapter contributions from an array of experts on robotics systems and applications.

15th European Conference, Munich, Germany, September 8–14, 2018, Proceedings, Part III

Springer Nature

The sixteen-volume set comprising the LNCS volumes 11205-11220 constitutes the refereed proceedings of the 15th European Conference on Computer Vision, ECCV 2018, held in Munich, Germany, in September 2018.The 776 revised papers presented were carefully reviewed and selected from 2439 submissions. The papers are organized in topical sections on learning for vision; computational photography; human analysis; human sensing; stereo and reconstruction; optimization; matching and recognition; video attention; and poster sessions.

Synthetic Data for Deep Learning Springer Nature

This two-volume set constitutes the refereed proceedings of the Third International Conference on Recent Trends in Image Processing and Pattern Recognition (RTIP2R) 2020, held in Aurangabad, India, in January 2020. The 78 revised full papers presented were carefully reviewed and selected from 329 submissions. The papers are organized in topical sections in the two volumes. Part I: Computer vision and applications; Data science and machine learning; Document understanding and Recognition. Part II: Healthcare informatics and medical imaging; Image analysis and recognition; Signal processing and pattern recognition; Image and signal processing in Agriculture.

Deep Learning in Biometrics Springer

Graph-structured data is ubiquitous throughout the natural and social sciences, from telecommunication networks to quantum chemistry. Building relational inductive biases into deep learning architectures is crucial for creating systems that can learn, reason, and generalize from this kind of data. Recent years have seen a surge in research on graph representation learning, including techniques for deep graph embeddings, generalizations of convolutional neural networks to graph-structured data, and neural message-passing approaches inspired by belief propagation. These advances in graph representation learning have led to new state-of-the-art results in numerous domains, including chemical synthesis, 3D vision, recommender systems, question answering, and social network analysis. This book provides a synthesis and overview of graph representation learning. It begins with a discussion of the goals of graph representation learning as well as key methodological foundations in graph theory and network analysis. Following this, the book introduces and reviews methods for learning node embeddings, including random-walk-based methods and applications to knowledge graphs. It then provides a technical synthesis and introduction to the highly successful graph neural network (GNN) formalism, which has become a dominant and fast-growing paradigm for deep learning with graph data. The book concludes with a synthesis

of recent advancements in deep generative models for graphs—a nascent but quickly growing subset of graph representation learning.

Facial Multi-characteristics And Applications Springer Nature

This book gathers the proceedings of the 21st Engineering Applications of Neural Networks Conference, which is supported by the International Neural Networks Society (INNS). Artificial Intelligence (AI) has been following a unique course, characterized by alternating growth spurts and “AI winters.” Today, AI is an essential component of the fourth industrial revolution and enjoying its heyday. Further, in specific areas, AI is catching up with or even outperforming human beings. This book offers a comprehensive guide to AI in a variety of areas, concentrating on new or hybrid AI algorithmic approaches with robust applications in diverse sectors. One of the advantages of this book is that it includes robust algorithmic approaches and applications in a broad spectrum of scientific fields, namely the use of convolutional neural networks (CNNs), deep learning and LSTM in robotics/machine vision/engineering/image processing/medical systems/the environment; machine learning and meta learning applied to neurobiological modeling/optimization; state-of-the-art hybrid systems; and the algorithmic foundations of artificial neural networks.

Advances and Challenges Springer Nature

Chapter "Heavy-tailed Kernels Reveal a Finer Cluster Structure in t-SNE Visualisations" is available open access under a Creative Commons Attribution 4.0 International License via link.springer.com.

15th International Symposium, ISVC 2020, San Diego, CA, USA, October 5–7, 2020, Proceedings, Part I

Springer Nature

The seven-volume set LNCS 12261, 12262, 12263, 12264, 12265, 12266, and 12267 constitutes the refereed proceedings of the 23rd International Conference on Medical Image Computing and Computer-Assisted Intervention, MICCAI 2020, held in Lima, Peru, in October 2020. The conference was held virtually due to the COVID-19 pandemic. The 542 revised full papers presented were carefully reviewed and selected from 1809 submissions in a double-blind review process. The papers are organized in the following topical sections: Part I: machine learning methodologies Part II: image reconstruction; prediction and diagnosis; cross-domain methods and reconstruction; domain adaptation; machine learning applications; generative adversarial networks Part III: CAI applications; image registration; instrumentation and surgical phase detection; navigation and visualization; ultrasound imaging; video image analysis Part IV: segmentation; shape models and landmark detection Part V: biological, optical, microscopic imaging; cell segmentation and stain normalization; histopathology image analysis; opthalmology Part VI: angiography and vessel analysis; breast imaging; colonoscopy; dermatology; fetal imaging; heart and lung imaging; musculoskeletal imaging Part VI: brain development and atlases; DWI and tractography; functional brain networks; neuroimaging; positron emission tomography

Proceedings of ICABDE 2021 Springer Nature

The three-volume set of LNCS 12532,

12533, and 12534 constitutes the proceedings of the 27th International Conference on Neural Information Processing, ICONIP 2020, held in Bangkok, Thailand, in November 2020. Due to COVID-19 pandemic the conference was held virtually.The 187 full papers presented were carefully reviewed and selected from 618 submissions. The papers address the emerging topics of theoretical research, empirical studies, and applications of neural information processing techniques across different domains. The first volume, LNCS 12532, is organized in topical sections on human-computer interaction; image processing and computer vision; natural language processing.

Artificial Neural Networks and Machine Learning – ICANN 2019: Workshop and Special Sessions

Springer Nature
This two-volume set of LNCS 12509 and 12510 constitutes the refereed proceedings of the 15th International Symposium on Visual Computing, ISVC 2020, which was supposed to be held in San Diego, CA, USA in October 2020, took place virtually instead due to the COVID-19 pandemic. The 114 full and 4 short papers presented in these volumes were carefully reviewed and selected from 175 submissions. The papers are organized into the following topical sections: Part I: deep learning; segmentation; visualization; video analysis and event recognition; ST: computational bioimaging; applications; biometrics; motion and tracking; computer graphics; virtual reality; and ST: computer vision advances in geo-spatial applications and remote sensing Part II: object recognition/detection/categorization; 3D reconstruction; medical image analysis; vision for robotics; statistical pattern recognition; posters

Biometric Recognition Springer Nature
The six-volume set comprising the LNCS volumes 11129-11134 constitutes the refereed proceedings of the workshops that took place in conjunction with the 15th European Conference on Computer Vision, ECCV 2018, held in Munich, Germany, in September 2018.43 workshops from 74 workshops proposals were selected for inclusion in the proceedings. The workshop topics present a good orchestration of new trends and traditional issues, built bridges into neighboring fields, and discuss fundamental technologies and novel applications.

Recognition and Perception of Images
Springer Nature
This book highlights the field of selfie biometrics, providing a clear overview and presenting recent advances and challenges. It also discusses numerous selfie authentication techniques on mobile devices. Biometric authentication using mobile devices is becoming a convenient and important means of verifying identity for secured access and services such as telebanking and electronic transactions. In this context, face and ocular biometrics in the visible spectrum has gained increased attention from the research community. However, device mobility and operation in uncontrolled environments mean that facial and ocular images captured with mobile devices exhibit substantial degradation as a result of adverse lighting conditions, specular reflections and motion and defocus blur. In addition, low spatial resolution and the small sensor of front-facing mobile cameras further degrade the

sample quality, reducing the recognition accuracy of face and ocular recognition technology when integrated into smartphones. Presenting the state of the art in mobile biometric research and technology, and offering an overview of the potential problems in real-time integration of biometrics in mobile devices, this book is a valuable resource for final-year undergraduate students, postgraduate students, engineers, researchers and academics in various fields of computer engineering.

Algorithms, Applications, and Technologies

Springer

A comprehensive guide to advanced deep learning techniques, including Autoencoders, GANs, VAEs, and Deep Reinforcement Learning, that drive today's most impressive AI results Key Features Explore the most advanced deep learning techniques that drive modern AI results Implement Deep Neural Networks, Autoencoders, GANs, VAEs, and Deep Reinforcement Learning A wide study of GANs, including Improved GANs, Cross-Domain GANs and Disentangled Representation GANs Book Description Recent developments in deep learning, including GANs, Variational Autoencoders, and Deep Reinforcement Learning, are creating impressive AI results in our news headlines - such as AlphaGo Zero beating world chess champions, and generative AI that can create art paintings that sell for over $400k because they are so human-like. Advanced Deep Learning with Keras is a comprehensive guide to the advanced deep learning techniques available today, so you can create your own cutting-edge AI. Using Keras as an open-source deep learning library, you'll find hands-on projects throughout that show you how to create more effective AI with the latest techniques. The journey begins with an overview of MLPs, CNNs, and RNNs, which are the building blocks for the more advanced techniques in the book. You'll learn how to implement deep learning models with Keras and Tensorflow, and move forwards to advanced techniques, as you explore deep neural network architectures, including ResNet and DenseNet, and how to create Autoencoders. You then learn all about Generative Adversarial Networks (GANs), and how they can open new levels of AI performance. Variational AutoEncoders (VAEs) are implemented, and you'll see how GANs and VAEs have the generative power to synthesize data that can be extremely convincing to humans - a major stride forward for modern AI. To complete this set of advanced techniques, you'll learn how to implement Deep Reinforcement Learning (DRL) such as Deep Q-Learning and Policy Gradient Methods, which are critical to many modern results in AI. What you will learn Cutting-edge techniques in human-like AI performance Implement advanced deep learning models using Keras The building blocks for advanced techniques - MLPs, CNNs, and RNNs Deep neural networks – ResNet and DenseNet Autoencoders and Variational AutoEncoders (VAEs) Generative Adversarial Networks (GANs) and creative AI techniques Disentangled Representation GANs, and Cross-Domain GANs Deep Reinforcement Learning (DRL) methods and implementation Produce industry-standard applications using OpenAI gym Deep Q-Learning and Policy Gradient Methods Who this book is for Some fluency with Python is assumed. As an advanced book, you'll be familiar with some machine learning approaches, and

some practical experience with DL will be helpful. Knowledge of Keras or TensorFlow is not required but would be helpful.
Data Management and Analysis Springer Nature
Computer Vision – ECCV 202016th European Conference, Glasgow, UK, August 23–28, 2020, Proceedings, Part XXVISpringer Nature
16th European Conference, Glasgow, UK, August 23–28, 2020, Proceedings, Part XXVI Springer Nature
Advanced Methods and Deep Learning in Computer Vision presents advanced computer vision methods, emphasizing machine and deep learning techniques that have emerged during the past 5–10 years. The book provides clear explanations of principles and algorithms supported with applications. Topics covered include machine learning, deep learning networks, generative adversarial networks, deep reinforcement learning, self-supervised learning, extraction of robust features, object detection, semantic segmentation, linguistic descriptions of images, visual search, visual tracking, 3D shape retrieval, image inpainting, novelty and anomaly detection. This book provides easy learning for researchers and practitioners of advanced computer vision methods, but it is also suitable as a textbook for a second course on computer vision and deep learning for advanced undergraduates and graduate students. Provides an important reference on deep learning and advanced computer methods that was created by leaders in the field Illustrates principles with modern, real-world applications Suitable for self-learning or as a text for graduate courses
Selfie Biometrics Springer Nature
This book contains the topics of artificial intelligence and deep learning that do have much application in real-life problems. The concept of uncertainty has long been used in applied science, especially decision making and a logical decision must be made in the field of uncertainty or in the real-life environment that is formed and combined with vague concepts and data. The chapters of this book are connected to the new concepts and aspects of decision making with uncertainty. Besides, other chapters are involved with the concept of data mining and decision making under uncertain computations.

Advanced Deep Learning with Keras

Packt Publishing Ltd
This book presents revised selected papers from the 16th International Forum on Digital TV and Wireless Multimedia Communication, IFTC 2019, held in Shanghai, China, in September 2019. The 34 full papers presented in this volume were carefully reviewed and selected from 120 submissions. They were organized in topical sections on image processing; machine learning; quality assessment; telecommunications; video surveillance; virtual reality.
Progress in Intelligent Decision Science Springer
This book is dedicated to the unique interdisciplinary research of imagery processing, recognition and perception. The contents of this book are based on the concepts of mathematical processing, compositional analysis applied in the art and design, and psychological factors of the information perception process. The conduction of compositional analysis carried out in the course of images processing and recognition, creation of the

image project solution and modeling of the conceptual space structures are considered together with the mechanism of their perception. Edited and written by a group of international experts, the practical applications for industry are covered, including the influence of internet memes on social networks and face recognition technology subject to interferences. The algorithms of perception and improving of accuracy necessary for satellite imagery recognition and complex reflection from the object are represented with the use of artificial neural networks. Not just a study in how humans recognize and perceive images, this outstanding new volume delves into how these processes are used in technology for continuously evolving industrial applications. Whether for the veteran scientist or engineer, or for the student, this is a must-have for any library.

Computer Vision – ECCV 2018 Morgan & Claypool Publishers

This book discusses various machine learning applications and models, developed using heterogeneous data, which helps in a comprehensive prediction, optimization, association analysis, cluster analysis and classification-related applications for various activities in urban area. It details multiple types of data generating from urban activities and suitability of various machine learning algorithms for handling urban data. The book is helpful for researchers, academicians, faculties, scientists and geospatial industry professionals for their research work and sets new ideas in the field of urban computing.