95, TITLE: CoSegNet: Image Co-segmentation using a Conditional Siamese Convolutional Network
https://www.ijcai.org/proceedings/2019/95
AUTHORS: Sayan Banerjee, Avik Hati, Subhasis Chaudhuri, Rajbabu Velmurugan
HIGHLIGHT: In this paper, we propose a novel deep convolution neural network based end-to-end co-segmentation model.

96, TITLE: Multi-Margin based Decorrelation Learning for Heterogeneous Face Recognition
https://www.ijcai.org/proceedings/2019/96
AUTHORS: Bing Cao, Nannan Wang, Xinbo Gao, Jie Li, Zhifeng Li
HIGHLIGHT: This paper presents a deep neural network approach namely Multi-Margin based Decorrelation Learning (MMDL) to extract decorrelation representations in a hyperspherical space for cross-domain face images.

97, TITLE: Generalized Zero-Shot Vehicle Detection in Remote Sensing Imagery via Coarse-to-Fine Framework
https://www.ijcai.org/proceedings/2019/97
AUTHORS: Hong Chen, Yongtan Luo, Liujuan Cao, Baochang Zhang, Guodong Guo, Cheng Wang, Jonathan Li, Rongrong Ji
HIGHLIGHT: In this paper, we introduce a novel coarse-to-fine framework, which decomposes vehicle detection into segmentation-based vehicle localization and generalized zero-shot vehicle classification.
To the best of our knowledge, there is no publically available dataset to test comparative methods, we therefore construct a new dataset to fill this gap of evaluation.

98, TITLE: Structure-Aware Residual Pyramid Network for Monocular Depth Estimation
https://www.ijcai.org/proceedings/2019/98
AUTHORS: Xiaotian Chen, Xuejin Chen, Zheng-Jun Zha
HIGHLIGHT: In this paper, we propose a Structure-Aware Residual Pyramid Network (SARPN) to exploit multi-scale structures for accurate depth prediction.

99, TITLE: A Deep Bi-directional Attention Network for Human Motion Recovery
https://www.ijcai.org/proceedings/2019/99
AUTHORS: Qiongjie Cui, Huaijiang Sun, Yupeng Li, Yue Kong
HIGHLIGHT: To address these issues, we propose a deep bi-directional attention network (BAN) which can not only capture the long-term dependencies but also adaptively extract relevant information at each time step.

100, TITLE: On Retrospecting Human Dynamics with Attention
https://www.ijcai.org/proceedings/2019/100
AUTHORS: Minjing Dong, Chang Xu
HIGHLIGHT: To address these challenges, we propose to retrospect human dynamics with attention.

101, TITLE: Learning to Draw Text in Natural Images with Conditional Adversarial Networks
https://www.ijcai.org/proceedings/2019/101
AUTHORS: Shancheng Fang, Hongtao Xie, Jianjun Chen, Jianlong Tan, Yongdong Zhang
HIGHLIGHT: In this work, we propose an entirely learning-based method to automatically synthesize text sequence in natural images leveraging conditional adversarial networks.

102, TITLE: Beyond Product Quantization: Deep Progressive Quantization for Image Retrieval
https://www.ijcai.org/proceedings/2019/102
AUTHORS: Lianli Gao, Xiaosu Zhu, Jingkuan Song, Zhou Zhao, Heng Tao Shen
HIGHLIGHT: In this work, we propose a deep progressive quantization (DPQ) model, as an alternative to PQ, for large scale image retrieval.

103, TITLE: ANODE: Unconditionally Accurate Memory-Efficient Gradients for Neural ODEs
https://www.ijcai.org/proceedings/2019/103
AUTHORS: Amir Gholaminejad, Kurt Keutzer, George Biros
HIGHLIGHT: We discuss the underlying problems, and to address them we propose ANODE, a neural ODE framework which avoids the numerical instability related problems noted above.

104, TITLE: Asynchronous Stochastic Frank-Wolfe Algorithms for Non-Convex Optimization
https://www.ijcai.org/proceedings/2019/104
AUTHORS: Bin Gu, Wenhan Xian, Heng Huang
HIGHLIGHT: To address this challenging problem, in this paper, we propose our asynchronous stochastic Frank-Wolfe algorithm (AsySFW) and its variance reduction version (AsySVFW) for solving the constrained non-convex optimization problems.

105, TITLE: Dense Temporal Convolution Network for Sign Language Translation
https://www.ijcai.org/proceedings/2019/105
AUTHORS: Dan Guo, Shuo Wang, Qi Tian, Meng Wang
HIGHLIGHT: To align the sign language actions and translate them into the respective words automatically, this paper proposes a dense temporal convolution network, termed DenseTCN which captures the actions in hierarchical views.

106, TITLE: Connectionist Temporal Modeling of Video and Language: a Joint Model for Translation and Sign Labeling
https://www.ijcai.org/proceedings/2019/106
AUTHORS: Dan Guo, Shengeng Tang, Meng Wang
HIGHLIGHT: This paper proposes a Connectionist Temporal Modeling (CTM) network for sentence translation and sign labeling.

107, TITLE: 3DViewGraph: Learning Global Features for 3D Shapes from A Graph of Unordered Views with Attention
https://www.ijcai.org/proceedings/2019/107
AUTHORS: Zhizhong Han, Xiyang Wang, Chi Man Vong, Yu-Shen Liu, Matthias Zwicker, C. L. Philip Chen
HIGHLIGHT: We propose 3DViewGraph to resolve this issue, which learns 3D global features by more effectively aggregating unordered views with attention.

108, TITLE: Parts4Feature: Learning 3D Global Features from Generally Semantic Parts in Multiple Views
https://www.ijcai.org/proceedings/2019/108
AUTHORS: Zhizhong Han, Xinhai Liu, Yu-Shen Liu, Matthias Zwicker
HIGHLIGHT: In contrast, we propose a deep neural network, called Parts4Feature, to learn 3D global features from part-level information in multiple views.

109, TITLE: MAT-Net: Medial Axis Transform Network for 3D Object Recognition
https://www.ijcai.org/proceedings/2019/109
AUTHORS: Jianwei Hu, Bin Wang, Lihui Qian, Yiling Pan, Xiaohu Guo, Lingjie Liu, Wenping Wang
HIGHLIGHT: In this work, we present MAT-Net, a neural network which captures local and global features from the Medial Axis Transform (MAT).

110, TITLE: Dynamic Feature Fusion for Semantic Edge Detection
https://www.ijcai.org/proceedings/2019/110
AUTHORS: Yuan Hu, Yunpeng Chen, Xiang Li, Jiashi Feng
HIGHLIGHT: In this work, we propose a novel dynamic feature fusion strategy that assigns different fusion weights for different input images and locations adaptively.

111, TITLE: Multi-Level Visual-Semantic Alignments with Relation-Wise Dual Attention Network for Image and Text Matching
https://www.ijcai.org/proceedings/2019/111
AUTHORS: Zhibin Hu, Yongsheng Luo, Jiong Lin, Yan Yan, Jian Chen
HIGHLIGHT: In this paper, we propose a relation-wise dual attention network (RDAN) for image-text matching.

112, TITLE: Learning Unsupervised Visual Grounding Through Semantic Self-Supervision
https://www.ijcai.org/proceedings/2019/112
AUTHORS: Syed Ashar Javed, Shreyas Saxena, Vineet Gandhi
HIGHLIGHT: In this paper, we propose a novel framework for unsupervised visual grounding which uses concept learning as a proxy task to obtain self-supervision.

113, TITLE: Supervised Set-to-Set Hashing in Visual Recognition
https://www.ijcai.org/proceedings/2019/113
AUTHORS: I-Hong Jhuo
HIGHLIGHT: In this paper, we consider the fundamental problem of finding a nearest set from a collection of sets, to a query set.

114, TITLE: Generative Image Inpainting with Submanifold Alignment
https://www.ijcai.org/proceedings/2019/114
AUTHORS: Ang Li, Jianzhong Qi, Rui Zhang, Xingjun Ma, Kotagiri Ramamohanarao

HIGHLIGHT: To address this limitation, we propose to enforce the alignment (or closeness) between the local data submanifolds (subspaces) around restored images and those around the original (uncorrupted) images during the learning process of GAN-based inpainting models.

115, TITLE: Detecting Robust Co-Saliency with Recurrent Co-Attention Neural Network
https://www.ijcai.org/proceedings/2019/115
AUTHORS: Bo Li, Zhengxing Sun, Lv Tang, Yunhan Sun, Jinlong Shi
HIGHLIGHT: This paper proposes a novel deep learning co-saliency detection approach which simultaneously learns single image properties and robust group feature in a recurrent manner.

116, TITLE: Variation Generalized Feature Learning via Intra-view Variation Adaptation
https://www.ijcai.org/proceedings/2019/116
AUTHORS: Jiawei Li, Mang Ye, Andy Jinhua Ma, Pong C Yuen
HIGHLIGHT: In this paper, we propose a Variation Generalized Feature Learning (VGFL) method to learn adaptable feature representation with intra-view positives.

117, TITLE: Pedestrian Attribute Recognition by Joint Visual-semantic Reasoning and Knowledge Distillation
https://www.ijcai.org/proceedings/2019/117
AUTHORS: Qiaozhe Li, Xin Zhao, Ran He, Kaiqi Huang
HIGHLIGHT: To achieve effective recognition, this paper presents a graph-based global reasoning framework to jointly model potential visual-semantic relations of attributes and distill auxiliary human parsing knowledge to guide the relational learning.

118, TITLE: Rethinking Loss Design for Large-scale 3D Shape Retrieval
https://www.ijcai.org/proceedings/2019/118
AUTHORS: Zhaoqun Li, Cheng Xu, Biao Leng
HIGHLIGHT: In this paper, we propose the Collaborative Inner Product Loss (CIP Loss) to obtain ideal shape embedding that discriminative among different categories and clustered within the same class.

119, TITLE: Attribute-Aware Convolutional Neural Networks for Facial Beauty Prediction
https://www.ijcai.org/proceedings/2019/119
AUTHORS: Luojun Lin, Lingyu Liang, Lianwen Jin, Weijie Chen
HIGHLIGHT: To address this problem, we propose an Attribute-aware Convolutional Neural Network (AaNet) that modulates the filters of the main network, adaptively, using parameter generators that take beauty-related attributes as extra inputs.

120, TITLE: Rectified Binary Convolutional Networks for Enhancing the Performance of 1-bit DCNNs
https://www.ijcai.org/proceedings/2019/120
AUTHORS: Chunlei Liu, Wenrui Ding, Xin Xia, Yuan Hu, Baochang Zhang, Jianzhuang Liu, Bohan Zhuang, Guodong Guo
HIGHLIGHT: In this paper, we propose rectified binary convolutional networks (RBCNs), towards optimized BCNNs, by combining full-precision kernels and feature maps to rectify the binarization process in a unified framework.

121, TITLE: Nuclei Segmentation via a Deep Panoptic Model with Semantic Feature Fusion
https://www.ijcai.org/proceedings/2019/121
AUTHORS: Dongnan Liu, Donghao Zhang, Yang Song, Chaoyi Zhang, Fan Zhang, Lauren O'Donnell, Weidong Cai
HIGHLIGHT: In this work, we propose a panoptic segmentation model which incorporates an auxiliary semantic segmentation branch with the instance branch to integrate global and local features.

122, TITLE: Densely Connected Attention Flow for Visual Question Answering
https://www.ijcai.org/proceedings/2019/122
AUTHORS: Fei Liu, Jing Liu, Zhiwei Fang, Richang Hong, Hanqing Lu
HIGHLIGHT: Therefore, in this paper, we propose a novel DCAF (Densely Connected Attention Flow) framework for modeling dense interactions.

123, TITLE: Unsupervised Learning of Scene Flow Estimation Fusing with Local Rigidity
https://www.ijcai.org/proceedings/2019/123
AUTHORS: Liang Liu, Guangyao Zhai, Wenlong Ye, Yong Liu
HIGHLIGHT: In this work, we present a unified framework for joint unsupervised learning of stereo depth and optical flow with explicit local rigidity to estimate scene flow.

124, TITLE: Resolution-invariant Person Re-Identification
https://www.ijcai.org/proceedings/2019/124

AUTHORS: Shunan Mao, Shiliang Zhang, Ming Yang
HIGHLIGHT: This paper learns person representations robust to resolution variance through jointly training a Foreground-Focus Super-Resolution (FFSR) module and a Resolution-Invariant Feature Extractor (RIFE) by end-to-end CNN learning.

125, TITLE: Low Shot Box Correction for Weakly Supervised Object Detection
https://www.ijcai.org/proceedings/2019/125
AUTHORS: Tianxiang Pan, Bin Wang, Guiguang Ding, Jungong Han, Junhai Yong
HIGHLIGHT: To solve this problem, we define a low-shot weakly supervised object detection task and propose a novel low-shot box correction network to address it.

126, TITLE: DBDNet: Learning Bi-directional Dynamics for Early Action Prediction
https://www.ijcai.org/proceedings/2019/126
AUTHORS: Guoliang Pang, Xionghui Wang, Jian-Fang Hu, Qing Zhang, Wei-Shi Zheng
HIGHLIGHT: To obtain a reliable future estimation, a novel encoder-decoder architecture is proposed for integrating the tasks of synthesizing future motions from observed videos and reconstructing observed motions from synthesized future motions in an unified framework, which can capture the bi-directional dynamics depicted in partial videos along the temporal (past-to-future) direction and reverse chronological (future-back-to-past) direction.

127, TITLE: Deep Light-field-driven Saliency Detection from a Single View
https://www.ijcai.org/proceedings/2019/127
AUTHORS: Yongri Piao, Zhengkun Rong, Miao Zhang, Xiao Li, Huchuan Lu
HIGHLIGHT: In this paper, we show for the first time that saliency detection problem can be reformulated as two sub-problems: light field synthesis from a single view and light-field-driven saliency detection.

128, TITLE: Deep Recurrent Quantization for Generating Sequential Binary Codes
https://www.ijcai.org/proceedings/2019/128
AUTHORS: Jingkuan Song, Xiaosu Zhu, Lianli Gao, Xin-Shun Xu, Wu Liu, Heng Tao Shen
HIGHLIGHT: To address this issue, we propose a Deep Recurrent Quantization (DRQ) architecture which can generate sequential binary codes.

129, TITLE: Talking Face Generation by Conditional Recurrent Adversarial Network
https://www.ijcai.org/proceedings/2019/129
AUTHORS: Yang Song, Jingwen Zhu, Dawei Li, Andy Wang, Hairong Qi
HIGHLIGHT: We propose a novel conditional recurrent generation network that incorporates both image and audio features in the recurrent unit for temporal dependency.

130, TITLE: Hallucinating Optical Flow Features for Video Classification
https://www.ijcai.org/proceedings/2019/130
AUTHORS: Yongyi Tang, Lin Ma, Lianqiang Zhou
HIGHLIGHT: In this paper, we propose a motion hallucination network, namely MoNet, to imagine the optical flow features from the appearance features, with no reliance on the optical flow computation.

131, TITLE: Color-Sensitive Person Re-Identification
https://www.ijcai.org/proceedings/2019/131
AUTHORS: Guan'an Wang, Yang Yang, Jian Cheng, Jinqiao Wang, Zengguang Hou
HIGHLIGHT: In this paper, we propose a novel Color-Sensitive Re-ID to take full advantage of color information.

132, TITLE: Convolutional Auto-encoding of Sentence Topics for Image Paragraph Generation
https://www.ijcai.org/proceedings/2019/132
AUTHORS: Jing Wang, Yingwei Pan, Ting Yao, Jinhui Tang, Tao Mei
HIGHLIGHT: In this paper, we present a new design --- Convolutional Auto-Encoding (CAE) that purely employs convolutional and deconvolutional auto-encoding framework for topic modeling on the region-level features of an image.

133, TITLE: DSRN: A Deep Scale Relationship Network for Scene Text Detection
https://www.ijcai.org/proceedings/2019/133
AUTHORS: Yuxin Wang, Hongtao Xie, Zilong Fu, Yongdong Zhang
HIGHLIGHT: To address this problem, we propose an end-to-end architecture called Deep Scale Relationship Network (DSRN) to map multi-scale convolution features onto a scale invariant space to obtain uniform activation of multi-size text instances.

134, TITLE: Transferable Adversarial Attacks for Image and Video Object Detection

https://www.ijcai.org/proceedings/2019/134
AUTHORS: Xingxing Wei, Siyuan Liang, Ning Chen, Xiaochun Cao
HIGHLIGHT: To address these issues, we present a generative method to obtain adversarial images and videos, thereby significantly reducing the processing time.

135, TITLE: Video Interactive Captioning with Human Prompts
https://www.ijcai.org/proceedings/2019/135
AUTHORS: Aming Wu, Yahong Han, Yi Yang
HIGHLIGHT: In this paper, we make a new attempt that, we launch a round of interaction between a human and a captioning agent.

136, TITLE: Mutually Reinforced Spatio-Temporal Convolutional Tube for Human Action Recognition
https://www.ijcai.org/proceedings/2019/136
AUTHORS: Haoze Wu, Jiawei Liu, Zheng-Jun Zha, Zhenzhong Chen, Xiaoyan Sun
HIGHLIGHT: In this work, we propose a novel and efficient Mutually Reinforced Spatio-Temporal Convolutional Tube (MRST) for human action recognition.

137, TITLE: Densely Supervised Hierarchical Policy-Value Network for Image Paragraph Generation
https://www.ijcai.org/proceedings/2019/137
AUTHORS: Siying Wu, Zheng-Jun Zha, Zilei Wang, Houqiang Li, Feng Wu
HIGHLIGHT: In this paper, we propose a novel Densely Supervised Hierarchical Policy-Value (DHPV) network for effective paragraph generation.

138, TITLE: Graph Convolutional Network Hashing for Cross-Modal Retrieval
https://www.ijcai.org/proceedings/2019/138
AUTHORS: Ruiqing Xu, Chao Li, Junchi Yan, Cheng Deng, Xianglong Liu
HIGHLIGHT: In this paper, we propose a Graph Convolutional Hashing (GCH) approach, which learns modality-unified binary codes via an affinity graph.

139, TITLE: MSR: Multi-Scale Shape Regression for Scene Text Detection
https://www.ijcai.org/proceedings/2019/139
AUTHORS: Chuhui Xue, Shijian Lu, Wei Zhang
HIGHLIGHT: This paper presents a novel multi-scale shape regression network (MSR) that is capable of locating text lines of different lengths, shapes and curvatures in scenes.

140, TITLE: Dynamically Visual Disambiguation of Keyword-based Image Search
https://www.ijcai.org/proceedings/2019/140
AUTHORS: Yazhou Yao, Zeren Sun, Fumin Shen, Li Liu, Limin Wang, Fan Zhu, Lizhong Ding, Gangshan Wu, Ling Shao
HIGHLIGHT: To address this issue, we present an adaptive multi-model framework that resolves polysemy by visual disambiguation.

141, TITLE: High Performance Gesture Recognition via Effective and Efficient Temporal Modeling
https://www.ijcai.org/proceedings/2019/141
AUTHORS: Yang Yi, Feng Ni, Yuexin Ma, Xinge Zhu, Yuankai Qi, Riming Qiu, Shijie Zhao, Feng Li, Yongtao Wang
HIGHLIGHT: In this paper, we focus instead on the 1D convolutional neural networks and propose a simple and efficient architectural unit, Multi-Kernel Temporal Block (MKTB), that models the multi-scale temporal responses by explicitly applying different temporal kernels.

142, TITLE: Capturing Spatial and Temporal Patterns for Facial Landmark Tracking through Adversarial Learning
https://www.ijcai.org/proceedings/2019/142
AUTHORS: Shi Yin, Shangfei Wang, Guozhu Peng, Xiaoping Chen, Bowen Pan
HIGHLIGHT: In this paper, we propose a novel deep adversarial framework to explore the shape and temporal dependencies from both appearance level and target label level.

143, TITLE: Pose-preserving Cross Spectral Face Hallucination
https://www.ijcai.org/proceedings/2019/143
AUTHORS: Junchi Yu, Jie Cao, Yi Li, Xiaofei Jia, Ran He
HIGHLIGHT: We present an approach to avert the data misalignment problem and faithfully preserve pose, expression and identity information during cross-spectral face hallucination.

144, TITLE: Generative Visual Dialogue System via Weighted Likelihood Estimation
https://www.ijcai.org/proceedings/2019/144
AUTHORS: Heming Zhang, Shalini Ghosh, Larry Heck, Stephen Walsh, Junting Zhang, Jie Zhang, C.-C. Jay Kuo
HIGHLIGHT: To address this issue, we propose a novel training scheme in conjunction with weighted likelihood estimation method.

145, TITLE: Binarized Neural Networks for Resource-Efficient Hashing with Minimizing Quantization Loss
https://www.ijcai.org/proceedings/2019/145
AUTHORS: Feng Zheng, Cheng Deng, Heng Huang
HIGHLIGHT: In order to solve the problem of memory consumption and computational requirements, this paper proposes a novel learning binary neural network framework to achieve a resource-efficient deep hashing.

146, TITLE: LRDNN: Local-refining based Deep Neural Network for Person Re-Identification with Attribute Discerning
https://www.ijcai.org/proceedings/2019/146
AUTHORS: Qinqin Zhou, Bineng Zhong, Xiangyuan Lan, Gan Sun, Yulun Zhang, Mengran Gou
HIGHLIGHT: Since re-ID, pose estimation and attribute recognition are all based on the person appearance information, we propose a Local-refining based Deep Neural Network (LRDNN) to aggregate pose estimation and attribute recognition to improve the re-ID performance.

147, TITLE: Face Photo-Sketch Synthesis via Knowledge Transfer
https://www.ijcai.org/proceedings/2019/147
AUTHORS: Mingrui Zhu, Nannan Wang, Xinbo Gao, Jie Li, Zhifeng Li
HIGHLIGHT: Therefore, we propose a novel knowledge transfer framework to synthesize face photos from face sketches or synthesize face sketches from face photos.