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Ph.D, Principal Researcher at Microsoft

Short Biography

Dongdong Chen is a Principal Research Manager at Microsoft GenAI, serving as one of the main technical leads in the development of a general-purpose multimodal large-scale foundation model like GPT4-V. His main research areas include the design and application of large-scale foundation cognitive models and AIGC models, AI security, visual representation learning, and neural network architecture design. He has published more than 90 papers in top international journals and conferences such as CVPR/ICCV/EECV/NeurIPs/TIP/IJCV/TPAMI, with 19 first-author or co-first-author publications and 11 sole corresponding author publications, which were cited more than ten thousands indexed by Google scholar with a H-index of 51. He is the recipient of the Special Award from the President of the Chinese Academy of Sciences, the top prize in the CCF National Youth Big Data Innovation Competition, as well as honors including Excellent Doctoral Dissertation from the Chinese Academy of Sciences and the Chinese Society of Image and Graphics Outstanding Doctoral Dissertation Award. In recognition of his expertise, he has served as the SPC of AAAI 2022, Area Chair of ICPR 2022, ECCV 2022, CVPR 2022, CVPR2023 and NeurIPs 2023, and Associate Editor of top SCI journal *Pattern Recognition*.

Work and Education Experience

05/2019-now **Principal Research Manager**, *Microsoft GenAI*, Redmond.

- Research in large-scale multi-modal foundation model development. Developed the large-scale foundation model "**Florence**" with billion-level multi-modality data and thousands of GPU; Developed the AIGC text-to-image generation model "**VQDiffusion**"; Developed the first unified face representation learning model "**FaRL**"; Developed the first unified visual-language foundation model "**OmniVL**" that can support both image-language and video-language tasks.
- Led the product development of the industry-leading foreground segmentation model and AIGC MagicEraser model, which was widely deployed in Microsoft Flagship products including Windows Copilot, Windows Photo, and Microsoft Paint; Delivered the proposed CSwin Transformer novel network architecture for industrial applications, which helped Microsoft secure a \$30 million order; The developed foundation model Florence, widely applied in Microsoft Intelligent Cloud, MS Offices, Bing Search, Windows systems, and other critical products, contributed to Microsoft being recognized as a leader in the IDC MarketScape assessment.

11/2015– **Long-term Research Intern**, *Microsoft Research*.

03/2018 Member of the Visual Computing group, supervised by Jian Sun and Gang Hua. Conducting cutting-edge Research in generative model development, and the developed style transfer technique was deployed into Microsoft Pix App.

09/2014– **PhD of Engineering in Information and Communication Engineering**, *University of Science*

05/2019 *and Technology of China*, Hefei, China, Thesis topic: Research on Visual Media Style Transfer.

Recipient of the Special Award from the President of the Chinese Academy of Sciences

09/2010– **Bachelor of Electronic Engineering and Information Science**, *University of Science and Technology of China*, Hefei, China, GPA – 3.98/4.3.

Recipient of the National Scholarship Award for two consecutive years.

Professional Services

- ★ Outstanding Reviewer of CVPR 2020, CVPR2021, ICCV2021
- ★ Senior Program Committee Member of AAAI 2022
- ★ Area Chair of ICPR 2022, CVPR 2022, ECCV 2022, CVPR 2023 and NeurIPs 2023
- ★ Associate Editor of SCI Journal *Pattern Recognition*

Publications(* Co-first Author, † Corresponding Author)

Foundation Model and Large-Scale Pretraining:

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- ★ Dianmo Sheng, **Dongdong Chen**, Zhentao Tan, Qiankun Liu, Qi Chu, Jianmin Bao, Tao Gong, Bin Liu, Shengwei xu, Nenghai Yu, Towards More Unified In-context Visual Understanding, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2024)*.
- ★ Ziyi Yang, MAHMOUD KHADEMI, Yichong Xu, Reid Pryzant, Yuwei Fang, Chenguang Zhu, **Dongdong Chen**, Yao Qian, Xuemei Gao, Yi-Ling Chen, Robert Gmyr, Naoyuki Kanda, Noel C Codella, Bin Xiao, Yu Shi, Lu Yuan, Takuya Yoshioka, Michael Zeng, Xuedong Huang, i-Code V2: An Autoregressive Generation Framework over Vision, Language, and Speech Data, *The 62nd Annual Meeting of the Association for Computational Linguistics(ACL 2024)*.
- ★ Rui Wang, **Dongdong Chen**, Zuxuan Wu, Yinpeng Chen, Xiyang Dai, Mengchen Liu, Lu Yuan, Yu-Gang Jiang, Masked Video Distillation: Rethinking Masked Feature Modeling for Self-supervised Video Representation Learning, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Xiaoyi Dong, Jianmin Bao, Yinglin Zheng, Ting Zhang, **Dongdong Chen**[†], Hao Yang, Ming Zeng, Weiming Zhang, Lu Yuan, Dong Chen, Fang Wen, Nenghai Yu, MaskCLIP: Masked Self-Distillation Advances Contrastive Language-Image Pretraining, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Shuquan Ye, Yujia Xie, **Dongdong Chen**, Yichong Xu, Lu Yuan, Chenguang Zhu, Jing Liao, Improving Commonsense in Vision-Language Models via Knowledge Graph Riddles, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Lingchen Meng, Xiyang Dai, Yinpeng Chen, Pengchuan Zhang, **Dongdong Chen**, Mengchen Liu, Jianfeng Wang, Zuxuan Wu, Lu Yuan, Yu-Gang Jiang, Detection Hub: Unifying Object Detection Datasets via Query Adaptation on Language Embedding, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.

- ★ Xiaoyi Dong, Jianmin Bao, Ting Zhang, **Dongdong Chen**[†], Weiming Zhang, Lu Yuan, Dong Chen, Fang Wen, Nenghai Yu, PeCo: Perceptual Codebook for BERT Pre-training of Vision Transformers *AAAI Conference on Artificial Intelligence (AAAI 2023)*.
- ★ Wan-Cyuan Fan, Yen-Chun Chen, **Dongdong Chen**, Yu Cheng, Lu Yuan, Yu-Chiang Frank Wang, Frido: Feature Pyramid Diffusion for Complex Scene Image Synthesis *AAAI Conference on Artificial Intelligence (AAAI 2023)*.
- ★ Ziyi Yang, Yuwei Fang, Chenguang Zhu, Reid Pryzant, **Dongdong Chen**, et.al, Xuedong Huang, i-Code: An Integrative and Composable Multimodal Learning Framework *AAAI Conference on Artificial Intelligence (AAAI 2023)*.
- ★ Junke Wang, **Dongdong Chen**, Zuxuan Wu, Chong Luo, Luwei Zhou, Yucheng Zhao, Yujia Xie, Ce Liu, Yu-Gang Jiang, Lu Yuan, OmniVL:One Foundation Model for Image-Language and Video-Language Tasks, *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS 2022)*.
- ★ Yuanze Lin, Yujia Xie, **Dongdong Chen**, Yichong Xu, Chenguang Zhu, Lu Yuan, REVIVE: Regional Visual Representation Matters in Knowledge-Based Visual Question Answering, *Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS 2022)*.
- ★ Xiaoyi Dong, Jianmin Bao, Ting Zhang, **Dongdong Chen**[†], Weiming Zhang, Lu Yuan, Dong Chen, Fang Wen, Nenghai Yu, Bootstrapped Masked Autoencoders for Vision BERT Pretraining, *European Conference on Computer Vision (ECCV 2022)*.
- ★ Lu Yuan, **Dongdong Chen**, Yi-Ling Chen, Noel Codella, Xiyang Dai, Jianfeng Gao, Houdong Hu, Xuedong Huang, Boxin Li, Chunyuan Li, Ce Liu, Mengchen Liu, Zicheng Liu, Yumao Lu, Yu Shi, Lijuan Wang, Jianfeng Wang, Bin Xiao, Zhen Xiao, Jianwei Yang, Michael Zeng, Luwei Zhou, Pengchuan Zhang, Florence: A New Foundation Model for Computer Vision *arXiv:2111.11432*.
- ★ Rui Wang, **Dongdong Chen**, Zuxuan Wu, Yinpeng Chen, Xiyang Dai, Mengchen Liu, Yu-Gang Jiang, Luwei Zhou, Lu Yuan, BEVT: BERT Pretraining of Video Transformers *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.
- ★ Shuyang Gu, Dong Chen, Jianmin Bao, Fang Wen, Bo Zhang, **Dongdong Chen**, Lu Yuan, Baining Guo, Vector Quantized Diffusion Model for Text-to-Image Synthesis *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.
- ★ Yinglin Zheng, Hao Yang, Ting Zhang, Jianmin Bao, **Dongdong Chen**, Yangyu Huang, Lu Yuan, Dong Chen, Ming Zeng, Fang Wen, General Facial Representation Learning in a Visual-Linguistic Manner *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.
- ★ Dengpan Fu, **Dongdong Chen**, Hao Yang, Jianmin Bao, Lu Yuan, Lei Zhang, Houqiang Li, Dong Chen, Fang Wen, Large Scale Pre-training for Person Re-identification with Noisy Labels, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.
- ★ Dengpan Fu, **Dongdong Chen**, Jianmin Bao, Hao Yang, Lu Yuan, Lei Zhang, Houqiang Li, Dong Chen, Unsupervised Pre-training for Person Re-identification, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)*.

- ★ Suichan Li*, **Dongdong Chen***†, Yinpeng Chen, Lu Yuan, Lei Zhang, Qi Chu, Bin Liu, Nenghai Yu, Improve Unsupervised Pretraining for Few-label Transfer, *International Conference on Computer Vision (ICCV 2021)*.

AIGC Models:

- ★ Tianyi Wei, **Dongdong Chen**†, Wenbo Zhou, Jing Liao, Hanqing Zhao, Weiming Zhang, Gang Hua, Nenghai Yu, Deep Image Matting with Sparse User Interactions, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2023)*
- ★ Tianyi Wei, **Dongdong Chen**, Wenbo Zhou, Jing Liao, Weiming Zhang, Gang Hua, Nenghai Yu, HairCLIPv2: Unifying Hair Editing via Proxy Feature Blending *International Conference on Computer Vision (ICCV 2023)*
- ★ Ruixiang Jiang, Can Wang, Jingbo Zhang, Menglei Chai, Mingming He, **Dongdong Chen**, Jing Liao, AvatarCraft: Transforming Text into Neural Human Avatars with Parameterized Shape and Pose Control *International Conference on Computer Vision (ICCV 2023)*
- ★ Shihao Zhao, **Dongdong Chen**†, Yen-Chun Chen, Jianmin Bao, Shaozhe Hao, Lu Yuan, Kwan-Yee K. Wong†, Uni-ControlNet: All-in-One Control to Text-to-Image Diffusion Models, *Thirty-Seventh Conference on Neural Information Processing Systems (NeurIPS 2023)*
- ★ Can Wang, Ruixiang Jiang, Menglei Chai, Mingming He, **Dongdong Chen**, Jing Liao, NeRF-Art: Text-Driven Neural Radiance Fields Stylization, *IEEE Transactions on Visualization and Computer Graphics (TVCG 2023)*
- ★ Zhentao Tan, Qi Chu, Menglei Chai, **Dongdong Chen**†, Jing Liao, Qiankun Liu, Bin Liu, Gang Hua, Nenghai Yu, Semantic Probability Distribution Modeling for Diverse Semantic Image Synthesis, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2022)*
- ★ Tianyi Wei*, **Dongdong Chen***, Wenbo Zhou, Jing Liao, Weiming Zhang, Lu Yuan, Gang Hua, Nenghai Yu, E2Style: Improve the Efficiency and Effectiveness of StyleGAN Inversion, *IEEE Transactions on Image Processing (TIP 2022)*
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- ★ Tianyi Wei, **Dongdong Chen**†, Wenbo Zhou†, Jing Liao, Zhentao Tan, Lu Yuan, Weiming Zhang, Nenghai Yu, HairCLIP: Design Your Hair by Text and Reference Image, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)*

- ★ Can Wang, Menglei Chai, Mingming He, **Dongdong Chen**, Jing Liao, Cross-Domain and Disentangled Face Manipulation with 3D Guidance, *IEEE Transactions on Visualization and Computer Graphics (TVCG 2021)*.
- ★ Ziyu Wan, Jingbo Zhang, **Dongdong Chen**, Jing Liao, High-Fidelity Pluralistic Image Completion with Transformers, *International Conference on Computer Vision (ICCV 2021)*.
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- ★ Tianyi Wei, **Dongdong Chen**[†], Wenbo Zhou[†], Jing Liao, Hanqing Zhao, Weiming Zhang, Nenghai Yu, Improved Image Matting via Real-time User Clicks and Uncertainty Estimation, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)*.
- ★ Zhentao Tan*, **Dongdong Chen***, Qi Chu, Menglei Chai, Jing Liao, Mingming He, Lu Yuan, Gang Hua, Nenghai Yu, Efficient Semantic Image Synthesis via Class-Adaptive Normalization, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2021)*.
- ★ Shuquan Ye, *Dongdong Chen*, Songfang Han, Ziyu Wan, Jing Liao, Meta-PU: An Arbitrary-Scale Upsampling Network for Point Cloud, *IEEE Transactions on Visualization and Computer Graphics (TVCG 2021)*.
- ★ **Dongdong Chen**, Qingnan Fan, Jing Liao, Angelica Aviles-Rivero, Lu Yuan, Nenghai Yu, Gang Hua, Controllable Image Processing via Adaptive FilterBank Pyramid, *IEEE Transactions on Image Processing (TIP 2020)*.
- ★ Zhentao Tan, Menglei Chai, **Dongdong Chen**, Jing Liao, Qi Chu, Lu Yuan, Sergey Tulyakov, Nenghai Yu, MichiGAN: multi-input-conditioned hair image generation for portrait editing, *ACM Transactions on Graphics (TOG 2020)*.
- ★ **Dongdong Chen**, Lu Yuan, Jing Liao, Nenghai Yu, Gang Hua, Explicit Filterbank Learning for Neural Image Style Transfer and Image Processing, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2020)*.
- ★ Daniel Heydecker, Georg Maierhofer, Angelica I Aviles-Rivero, Qingnan Fan, **Dongdong Chen**, Carola-Bibiane Schönlieb, Sabine Süsstrunk, Mirror, Mirror, on the Wall, Who's Got the Clearest Image of Them All?-A Tailored Approach to Single Image Reflection Removal, *IEEE Transactions on Image Processing (TIP 2019)*.
- ★ Qingnan Fan*, **Dongdong Chen***, Lu Yuan, Gang Hua, Nenghai Yu, Baoquan Chen, A General Decoupled Learning Framework for Parameterized Image Operators, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2019)*.
- ★ **Dongdong Chen**, Mingming He, Qingnan Fan, Jing Liao, Liheng Zhang, Dongdong Hou, Lu Yuan, Gao Hua, Gated Context Aggregation Network for Image Dehazing and Deraining, *IEEE Winter Conf. on Applications of Computer Vision (WACV 2019)*.
- ★ Mingming He, Jing Liao, Lu Yuan, **Dongdong Chen**, Pedro V. Sander, Progressive Color Transfer with Dense Semantic Correspondences, *ACM Transactions on Graphics (TOG 2018)*.

- ★ Qingnan Fan*, **Dongdong Chen***, Lu Yuan, Gang Hua, Nenghai Yu, Baoquan Chen, Decouple Learning for Parameterized Image Operators, *European Conference on Computer Vision (ECCV 2018)*.
- ★ Mingming He*, **Dongdong Chen***, Jing Liao, Pedro V. Sander, Lu Yuan, Deep Exemplar-based Colorization, *ACM Transactions on Graphics (Siggraph 2018)*.
- ★ **Dongdong Chen**, Lu Yuan, Jing Liao, Nenghai Yu, Gang Hua, Stereoscopic Neural Style Transfer, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2018)*.
- ★ **Dongdong Chen**, Jing Liao, Lu Yuan, Nenghai Yu, Gang Hua, Coherent Online Video Style Transfer, *International Conference on Computer Vision (ICCV 2017)*.
- ★ **Dongdong Chen**, Lu Yuan, Jing Liao, Nenghai Yu, Gang Hua, StyleBank: An Explicit Representation for Neural Image Style Transfer, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2017)*.

Representation Learning:

- ★ Munan Ning, Donghuan Lu, Yujia Xie, **Dongdong Chen**, Dong Wei, Yefeng Zheng, Yonghong Tian, Shuicheng Yan, Li Yuan, MADAv2: Advanced Multi-Anchor Based Active Domain Adaptation Segmentation, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2023)*.
- ★ Hanqing Zhao, Dianmo Sheng, Jianmin Bao, **Dongdong Chen**, et al., Nenghai Yu, X-Paste: Revisiting Scalable Copy-Paste for Instance Segmentation using CLIP and StableDiffusion, *International Conference on Machine Learning (ICML 2023)*.
- ★ Lingchen Meng, Xiyang Dai, Jianwei Yang, **Dongdong Chen**, Yinpeng Chen, Mengchen Liu, Yi-Ling Chen, Zuxuan Wu, Lu Yuan, Yu-Gang Jiang, Learning from Rich Semantics and Coarse Locations for Long-tailed Object Detection, *Thirty-Seventh Conference on Neural Information Processing Systems (NeurIPS 2023)*.
- ★ Junke Wang, **Dongdong Chen**, Zuxuan Wu, Chong Luo, Chuanxin Tang, Xiyang Dai, Yucheng Zhao, Yujia Xie, Lu Yuan, Yu-Gang Jiang, Look Before You Match: Instance Understanding Matters in Video Object Segmentation, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Yucheng Zhao, Chong Luo, Chuanxin Tang, **Dongdong Chen**, Noel C Codella, Zheng-Jun Zha, Streaming Video Model, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Qidong Huang, Xiaoyi Dong, **Dongdong Chen**, Weiming Zhang, Feifei Wang, Gang Hua, Nenghai Yu, Diversity-Aware Meta Visual Prompting, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2023)*.
- ★ Shuquan Ye, **Dongdong Chen**, Songfang Han, Jing Liao, Robust Point Cloud Segmentation with Noisy Annotations, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2022)*.

- ★ Ziyu Wan, Bo Zhang, **Dongdong Chen**, Pan Zhang, Dong Chen, Jing Liao, Fang Wen, Old Photo Restoration via Deep Latent Space Translation, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2022)*.
- ★ Yunsheng Li, Yinpeng Chen, Xiyang Dai, **Dongdong Chen**, Mengchen Liu, Pei Yu, Jing Yin, Lu Yuan, Zicheng Liu, Nuno Vasconcelos, Should All Proposals be Treated Equally in Object Detection? *European Conference on Computer Vision (ECCV 2022)*.
- ★ Xiaoyi Dong, Jianmin Bao, **Dongdong Chen**[†], Weiming Zhang, Nenghai Yu, Lu Yuan, Dong Chen, Baining Guo, CSWin Transformer: A General Vision Transformer Backbone with Cross-Shaped Windows, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*
- ★ Shuquan Ye, **Dongdong Chen**, Songfang Han, Jing Liao, 3D Question Answering, *IEEE Transactions on Visualization and Computer Graphics (TVCG 2022)*
- ★ Qiankun Liu*, **Dongdong Chen***, Qi Chu, Lu Yuan, Bin Liu, Lei Zhang, Nenghai Yu, Online Multi-Object Tracking with Unsupervised Re-Identification Learning and Occlusion Estimation, *Neurocomputing 2022*
- ★ Yinpeng Chen, Xiyang Dai, **Dongdong Chen**, Mengchen Liu, Xiaoyi Dong, Lu Yuan, Zicheng Liu, Mobile-Former: Bridging MobileNet and Transformer, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*
- ★ Junru Wu, Xiyang Dai, **Dongdong Chen**, Yinpeng Chen, Mengchen Liu, Ye Yu, Zhangyang Wang, Zicheng Liu, Mei Chen, Lu Yuan, Stronger NAS with Weaker Predictors, *NeurIPs 2021*.
- ★ Yunsheng Li, Yinpeng Chen, Xiyang Dai, **Dongdong Chen**, Mengchen Liu, Lu Yuan, Zicheng Liu, Lei Zhang, Nuno Vasconcelos, MicroNet: Improving Image Recognition with Extremely Low FLOPs, *International Conference on Computer Vision (ICCV 2021)*.
- ★ Shuquan Ye, **Dongdong Chen**, Songfang Han, Jing Liao, Learning with Noisy Labels for Robust Point Cloud Segmentation, *International Conference on Computer Vision (ICCV 2021)*.
- ★ Ziyu Wan, **Dongdong Chen**, Jing Liao, Visual Structure Constraint for Transductive Zero-Shot Learning in the Wild, *International Journal of Computer Vision (IJCV 2021)*.
- ★ Xiyang Dai, Yinpeng Chen, Bin Xiao, **Dongdong Chen**, Mengchen Liu, Lu Yuan, Lei Zhang, Dynamic Head: Unifying Object Detection Heads with Attentions, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)*.
- ★ Yunsheng Li, Yinpeng Chen, Xiyang Dai, Mengchen Liu, **Dongdong Chen**, Ye Yu, Lu Yuan, Zicheng Liu, Mei Chen, Nuno Vasconcelos, Revisiting Dynamic Convolution via Matrix Decomposition, *International Conference on Learning Representations (ICLR 2021)*.
- ★ Dengpan Fu, Bo Xin, Jingdong Wang, **Dongdong Chen**, Jianmin Bao, Gang Hua, Houqiang Li, Improving Person Re-identification with Iterative Impression Aggregation, *IEEE Transactions on Image Processing (TIP 2020)*.

- ★ Xiyang Dai, **Dongdong Chen**, Mengchen Liu, Yinpeng Chen, Lu Yuan, DA-NAS: Data Adapted Pruning for Efficient Neural Architecture Search, *European Conference on Computer Vision (ECCV 2020)*.
- ★ Yinpeng Chen, Xiyang Dai, Mengchen Liu, **Dongdong Chen**, Lu Yuan, Zicheng Liu, Dynamic ReLU, *European Conference on Computer Vision (ECCV 2020)*.
- ★ Suichan Li, Bin Liu, **Dongdong Chen**, Qi Chu, Lu Yuan, Nenghai Yu, Density-Aware Graph for Deep Semi-Supervised Visual Recognition, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2020)*.
- ★ Ziyu Wan, Bo Zhang, **Dongdong Chen**, Pan Zhang, Dong Chen, Jing Liao, Fang Wen, Bringing Old Photos Back to Life, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2020)*.
- ★ Yinpeng Chen, Xiyang Dai, Mengchen Liu, **Dongdong Chen**, Lu Yuan, Zicheng Liu, Dynamic convolution: Attention over convolution kernels, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2020)*.
- ★ Ziyu Wan*, **Dongdong Chen***, Yan Li, Xingguang Yan, Junge Zhang, Yizhou Yu, Jing Liao, Transductive Zero-Shot Learning with Visual Structure Constraint, *Thirty-third Conference on Neural Information Processing Systems (NeurIPS 2019)*.
- ★ Jizhou Yan, **Dongdong Chen**, Heesoo Myeong, Takaaki Shiratori, Yi Ma, Automatic Extraction of Moving Objects from Image and LIDAR Sequences , *International Conference on 3D Vision 2014 (3DV 2014)*.

AI Security:

- ★ Jie Zhang*, **Dongdong Chen*†**, Jing Liao, Han Fang, Zehua Ma, Weiming Zhang, Gang Hua, Nenghai Yu, Exploring Structure Consistency for Deep Model Watermarking, *IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI 2024) Major Revision*
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- ★ Qidong Huang, Xiaoyi Dong, **Dongdong Chen**, Yinpeng Chen, Lu Yuan, Gang Hua, Weiming Zhang, Nenghai Yu, Improving Adversarial Robustness of Masked Autoencoders via Test-time Frequency-domain Prompting , *International Conference on Computer Vision (ICCV 2023)*.
- ★ Jie Zhang, **Dongdong Chen†**, Jing Liao, Qidong Huang, Gang Hua, Weiming Zhang, Nenghai Yu, Poison Ink: Robust and Invisible Backdoor Attack, *IEEE Transactions on Image Processing (TIP 2022)*.
- ★ Xiaoyi Dong, Jianmin Bao, **Dongdong Chen†**, Ting Zhang, Weiming Zhang, Nenghai Yu, Dong Chen, Fang Wen, Baining Guo, Protecting Celebrities from DeepFake with Identity Consistency Transformer, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2022)*.

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- ★ Hanqing Zhao, Wenbo Zhou, **Dongdong Chen**, Tianyi Wei, Weiming Zhang, Nenghai Yu, Multi-attentional Deepfake Detection, *IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR 2021)*.
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- ★ Huanyu Bian, Hao Cui, Kunlin Liu, Hang Zhou, **Dongdong Chen**†, Wenbo Zhou, Weiming Zhang†, Nenghai Yu, CDAE: Color decomposition-based adversarial examples for screen devices, *Information Sciences 2021*,
- ★ Huanyu Bian, **Dongdong Chen**†, Kui Zhang, Hang Zhou, Xiaoyi Dong, Wenbo Zhou, Weiming Zhang†, Nenghai Yu, Adversarial defense via self-orthogonal randomization super-network, *Neurocomputing 2021*,
- ★ Kejiang Chen, Hang Zhou, Hanqing Zhao, **Dongdong Chen**, Weiming Zhang, Nenghai Yu, Distribution-Preserving Steganography Based on Text-to-Speech Generative Models, *IEEE Transactions on Dependable and Secure Computing (TDSC 2021)*.
- ★ Kunlin Liu, **Dongdong Chen***, Jing Liao, Weiming Zhang, Hang Zhou, Jie Zhang, Wenbo Zhou, Nenghai Yu, JPEG Robust Invertible Grayscale, *IEEE Transactions on Visualization and Computer Graphics (TVCG 2021)*.
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- ★ Han Fang, **Dongdong Chen**, Qidong Huang, Jie Zhang, Zehua Ma, Weiming Zhang, Nenghai Yu, Deep Template-based Watermarking, *IEEE Transactions on Circuits and Systems for Video Technology (TCSVT 2020)*.
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- ★ **Dongdong Chen**, Jianmin Bao, Ting Zhang, Lu Yuan, Dong Chen, Fang Wen *"Training masked autoencoders for image inpainting"*, US Patent, under Filing
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- ★ Jing Liao, Lu Yuan, **Dongdong Chen**, Mingming He, *"Image colorization based on reference information"*, US Patent: 17056737
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Awards

- ★ 2020-Outstanding Doctoral Dissertation from the Chinese Academy of Sciences.
- ★ 2020-Outstanding Doctoral Dissertation from the Chinese Society of Image and Graphics.
- ★ 2019-Recipient of the Special Award from the President of the Chinese Academy of Sciences
- ★ 2015-The top prize in the CCF National Youth Big Data Innovation Competition 2015
- ★ 2013-National ScholarShip.
- ★ 2012-National ScholarShip.