

ANDONG DENG

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RESEARCH INTERESTS

Computer Vision, Video Understanding, Multimodal Learning, Generative Models, etc.

EDUCATION

University of Central Florida, U.S. *Sep. 2022 - Present*

PhD of Computer Science

Advisor: Dr. Chen Chen

Shanghai Jiao Tong University, China *Sep. 2018 - Mar. 2021*

Master of Power Engineering

Advisor: Dr. Weiwei Cai

Sichuan University, China *Sep. 2013 - Jun. 2017*

Bachelor of Energy and Power Engineering

RESEARCH EXPERIENCE

Research Assistant, Shanghai Jiao Tong University *Sep. 2018 - Mar. 2021*

Worked with: Dr. Weiwei Cai (cweiwei@sjtu.edu.cn)

Application of deep learning on smart combustion diagnostics:

- Rapid 2D temperature field reconstruction based on a nonlinear tomography method
- 3D flame reconstruction based on computed tomography

Research Assistant, Renmin University of China *Apr. 2021 - Jun. 2022*

Worked with: Dr. Di Hu (dihu@ruc.edu.cn)

Multimodal machine perception:

- Audio-driven video generation
- Training improvement of audio-visual video understanding
- Audio-visual temporal action/event localization

Research Assistant, University of Central Florida *Apr. 2022 - Present*

Worked with: Dr. Chen Chen (chen.chen@crcv.ucf.edu)

Video Understanding:

- Benchmarking video action recognition
- Temporal action localization
- Application of video action recognition on Autistic Spectrum Disorder

WORK EXPERIENCE

Research Intern, Sense Time *May. 2020 - Jun. 2021*

Worked with: Dr. Yang Cao (caoyang@sensetime.com) and Dr. Rui Zhao (zhaorui@sensetime.com)

- Tencent Advertisement Algorithm Competition 2020: user's gender and age prediction
- Unsupervised video representation disentanglement and generation

Research Intern, Baidu Research, Big Data Lab *Jul. 2021 - Mar. 2022*

Worked with: Dr. Xingjian Li (lixingjian@baidu.com) and Dr. Dejing Dou (doudejing@baidu.com)

- Self-supervised pre-training for object detection
- Transfer learning for image classification

PUBLICATION

1. **Andong Deng***, Taojiannan Yang* and Chen Chen. A Large-scale Study of Spatiotemporal Representation Learning with a New Benchmark on Action Recognition, ICCV, 2023
2. **Andong Deng***, Xingjian Li*, Di Hu, Tianyang Wang, Haoyi Xiong and Cheng-Zhong Xu. Towards Inadequately Pre-trained Models in Transfer Learning, ICCV, 2023
3. Shoubin Yu, Zhongying Zhao, Haoshu Fang, **Andong Deng** and Cewu Lu. Regularity Learning via Explicit Distribution Modeling for Skeletal Video Anomaly Detection, IEEE Transactions on Circuits and Systems for Video Technology, 2023
4. Wenke Xia, Xingjian Li, **Andong Deng**, Haoyi Xiong, Dejing Dou, and Di Hu. Robust Cross-Modal Knowledge Distillation for Unconstrained Videos, ICME, 2023
5. Xiaokang Peng*, Yake Wei*, **Andong Deng**, Dong Wang and Di Hu. Balanced Multimodal Learning via On-the-fly Gradient Modulation, CVPR, 2022, **Oral**

SERVICE

Reviewer of CVPR 2022, ECCV 2022 and ICCV 2023

PREVIOUS PUBLICATIONS

1. **Andong Deng**, Jianqing Huang, Hecong Liu, Weiwei Cai. Deep learning algorithm for temperature field reconstruction of nonlinear tomographic absorption. *Measurement: Sensors*, 2020.
2. Weiwei cai, Jianqing Huang, **Andong Deng**, Qian Wang. Volumetric reconstruction for combustion diagnostics via transfer learning and semi-supervised learning with limited labels. *Aerospace Science and Technology*, 2021.

SKILLS

Programming: Python, Matlab
Frameworks: PyTorch, TensorFlow, NumPy