ANDONG DENG

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RESEARCH INTERESTS

Computer Vision, Multimodal Machine Perception, Generative Models, Cognitive Science, etc.

EDUCATION

University of Central Florida, U.S.   *Upcoming in 2022 Fall*
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 temperature field reconstruction via deep learning methods
- Denoising of combustion field flame projections
- Volumetric reconstruction for combustion diagnostics with limited annotated data

Research Assistant, Renmin University of China   *Apr. 2021 - present*
Worked with: Dr. Di Hu (dihu@ruc.edu.cn)
Multimodal machine perception:
- Audio-driven video prediction
- Enhanced multi-modality learning via gradient modulation
- Audio-visual video scene understanding

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
- Spectrum analysis of pre-trained models

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.

PRE-PRINT AND IN SUBMISSION

1. Shoubin Yu, Zhongying Zhao, Haoshu Fang, **Andong Deng** and Cewu Lu. Regularity Learning via Explicit Distribution Modeling for Skeletal Video Anomaly Detection, arXiv preprint arXiv:2112.03649v2, 2021

2. **Andong Deng***, Xingjian Li*, Zhibing Li, Di Hu, Chengzhong Xu and Dejing Dou. Inadequately Pre-trained Models are Better Feature Extractors, arXiv preprint arXiv:2203.04668, 2022.

3. Yake Wei, Xiaokang Peng, **Andong Deng** and Di Hu. AM-Drop: Adaptive Dropping Modalities for Regularized Multi-modal Learning, in submission.

PUBLICATION

1. Xiaokang Peng*, Yake Wei*, **Andong Deng**, Dong Wang and Di Hu. Balanced Multimodal Learning via On-the-fly Gradient Modulation, CVPR, 2022, **Oral**.

SKILLS

Languages:	English
Programming:	Python, Matlab
Frameworks:	PyTorch, TensorFlow