

Ailing Zeng

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Research Interest

Human-centric visual understanding and perception, like 3d human pose estimation/reconstruction/animation, and human neural rendering; human-centric image/motion generation and editing; spatial-temporal time series analysis.

Education

- 2017.08-2022.02 **Ph.D.**, *Department of Computer Science & Engineering*, The Chinese University of Hong Kong, Hong Kong SAR
Full Postgraduate Studentship, Supervisor: Qiang Xu
- 2013.09-2017.06 **B.Eng., Electronic Engineering / Finance mathematics**, *Xiamen University*, Xiamen, China
School Ranking: 1/95

Publication

- CVPR 2023 **One-Stage 3D Whole-Body Mesh Recovery with Component Aware Transformer**
Jing Lin, **Ailing Zeng**[#], Haoqian Wang, Lei Zhang, Yu Li, The Thirty-Fourth IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- CVPR 2023 **Human-Art: A Versatile Human-Centric Dataset Bridging Natural and Artificial Scenes**
Xuan Ju, **Ailing Zeng**[#], Jianan Wang, Qiang Xu, Lei Zhang, The Thirty-Fourth IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- CVPR 2023 **Lite DETR : An Interleaved Multi-Scale Encoder for Efficient DETR**
Feng Li, **Ailing Zeng**, Shilong Liu, Hao Zhang, Hongyang Li, Lionel Ni, Lei Zhang, The Thirty-Fourth IEEE/CVF Conference on Computer Vision and Pattern Recognition (CVPR), 2023
- ICLR 2023 **Explicit Box Detection Unifies End-to-End Multi-Person Pose Estimation**, Jie Yang, **Ailing Zeng**[#], Shilong Liu, Feng Li, Ruimao Zhang[#], Lei Zhang
Eleventh International Conference on Learning Representations (ICLR), 2023
- AAAI 2023 **Are Transformers Effective for Time Series Forecasting?**
Ailing Zeng, Muxi Chen, Lei Zhang, Qiang Xu, Thirty-Seventh AAAI Conference on Artificial Intelligence (AAAI), 2023

- ECCV 2022 **DeciWatch: A Simple Baseline for 10× Efficient 2D and 3D Pose Estimation**
Ailing Zeng, Xuan Ju, Lei Yang, Ruiyuan Gao, Xizhou Zhu, Bo Dai, Qiang Xu, European Conference on Computer Vision (ECCV), 2022
- ECCV 2022 **SmoothNet: A Plug-and-Play Network for Refining Human Poses in Videos**
Ailing Zeng, Lei Yang, Xuan Ju, Jiefeng Li, Jianyi Wang, Qiang Xu, European Conference on Computer Vision (ECCV), 2022
- ECCV 2022 **HuMMan: Multi-Modal 4D Human Dataset for Versatile Sensing and Modeling**
 Zhongang Cai*, Daxuan Ren*, **Ailing Zeng***, Zhengyu Lin*, Tao Yu*, Wenjia Wang*, Xiangyu Fan, Yang Gao, Yifan Yu, Liang Pan, Fangzhou Hong, Mingyuan Zhang, Chen Change Loy, Lei Yang, Ziwei Liu, European Conference on Computer Vision (ECCV), 2022
- NeurIPS 2022 **SCINet: Time Series Modeling and Forecasting with Sample Convolution and Interaction**
 Minhao Liu, **Ailing Zeng**, Qiuxia Lai, Qiang Xu, Thirty-sixth Conference on Neural Information Processing Systems (NeurIPS'22)
- ICLR 2022 **T-WaveNet: A Tree-Structured Wavelet Neural Network for Time Series Signal Analysis**
 Minhao Liu, **Ailing Zeng**, Qiuxia Lai, Qiang Xu, Tenth International Conference on Learning Representations (ICLR'22)
- ICCV 2021 **Learning Skeletal Graph Neural Networks for Hard 3D Pose Estimation**, **Ailing Zeng**, Xiao Sun, Lei Yang, Nanxuan Zhao, Minhao Liu, Qiang Xu, The International Conference on Computer Vision (ICCV'21)
- ICCV 2021 **Human Pose Regression with Residual Log-likelihood Estimation**, Jiefeng Li, Siyuan Bian, **Ailing Zeng**, Can Wang, Bo Pang and Cewu Lu, The International Conference on Computer Vision (ICCV'21, Oral)
- IJCAI 2021 **Information Bottleneck Approach to Spatial Attention Learning**, Qiuxia Lai, Yu Li, **Ailing Zeng**, Minhao Liu, Qiang Xu, Hanqiu Sun, The International Joint Conference on Artificial Intelligence (IJCAI'21)
- ECCV 2020 **SRNet: Improving Generalization in 3D Human Pose Estimation with a Split-and-Recombine Approach**
Ailing Zeng, Xiao Sun, Fuyang Huang, Minhao Liu, Qiang Xu, Stephen Lin, The European Conference on Computer Vision (ECCV'20)
- WACV 2020 **DeepFuse: An IMU-Aware Network for Real-Time 3D Human Pose Estimation from Multi-View Image**, Fuyang Huang, **Ailing Zeng**, Minhao Liu, Qiang Xu, The Winter Conference on Applications of Computer Vision (WACV'20)
- ICCV 2019 **Differentiable Kernel Evolution**, Yu Liu, Jihao Liu, **Ailing Zeng**, Xiaogang Wang, The International Conference on Computer Vision (ICCV'19)

Work Experience

- Apr.2022- **Researcher**, *International Digital Economy Academy*
 Now Worked on Human-centric computer vision.
- Nov.2020- **Research intern**, *Sensetime Research, X-Lab*
 Apr.2022 Worked on robust 3D human pose estimation and body reconstruction from videos.
- Dec.2019- **Research intern**, *Microsoft Asia Research*, Visual Computing Group
 Sep.2020 Worked on improving the generalization ability of single-view 3D human pose estimation from either images or videos.

Jun.2018- **Research intern**, *Baidu Research*
Sep.2018 Worked on 2D human pose estimation.

Honors and Awards

- Full Postgraduate Studentship, CUHK (2017 - 2021)
- Excellent League Member, Top 1% student of Xiamen University
- National Scholarship (2015)