Zizheng Pan

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EDUCATION

Monash University

Ph.D. in Computer Science

Melbourne, Australia Jan 2021 - Now

The University of Adelaide

M.S. in Computer Science

Adelaide, Australia Jul 2018 - Jul 2020

Harbin Institute of Technology

B.E. in Software Engineering

Weihai, China Sep 2015 - Jun 2019

Research Interests

Deep Learning, Efficient and Scalable Vision, Model Compression, Vision Transformers.

Publications

(\* denotes equal contribution)

• Fast Vision Transformers with HiLo Attention.

Zizheng Pan, Jianfei Cai, Bohan Zhuang.

Conference on Neural Information Processing Systems (NeurIPS), 2022. (Spotlight, Top 6.9%)

• EcoFormer: Energy-Saving Attention with Linear Complexity.

Jing Liu\*, **Zizheng Pan\***, Haoyu He, Jianfei Cai, Bohan Zhuang.

Conference on Neural Information Processing Systems (NeurIPS), 2022. (Spotlight, Top 6.9%)

• An Efficient Spatio-Temporal Pyramid Transformer for Action Detection.

Yuetian Weng, Zizheng Pan, Mingfei Han, Xiaojun Chang, Bohan Zhuang.

In European Conference on Computer Vision (ECCV), 2022.

• Less is More: Pay Less Attention in Vision Transformers.

Zizheng Pan, Bohan Zhuang, Haoyu He, Jing Liu, Jianfei Cai.

In AAAI Conference on Artificial Intelligence (AAAI), 2022.

• Scalable Visual Transformers with Hierarchical Pooling.

Zizheng Pan, Bohan Zhuang, Jing Liu, Haoyu He, Jianfei Cai.

In International Conference on Computer Vision (ICCV), 2021.

• The Road to Know-Where: An Object-and-Room Informed Sequential BERT for Indoor Vision-Language Navigation.

Yuankai Qi, Zizheng Pan, Yicong Hong, Ming-Hsuan Yang, Anton van den Hengel, Qi Wu.

In International Conference on Computer Vision (ICCV), 2021.

• Object-and-Action Aware Model for Visual Language Navigation.

Yuankai Qi, **Zizheng Pan**, Shengping Zhang, Anton van den Hengel, Qi Wu.

In European Conference on Computer Vision (ECCV), 2020.

## Technical Report

• Mesa: A Memory-saving Training Framework for Transformers, on arXiv.

Zizheng Pan, Peng Chen, Haoyu He, Jing Liu, Jianfei Cai, Bohan Zhuang.

• Pruning Self-attentions into Convolutional Layers in Single Path, on arXiv.

Haoyu He, Jing Liu, **Zizheng Pan**, Jianfei Cai, Jing Zhang, Dacheng Tao, Bohan Zhuang.

• Dynamic Focus-aware Positional Queries for Semantic Segmentation, on arXiv. Haoyu He, Jianfei Cai, **Zizheng Pan**, Jing Liu, Jing Zhang, Dacheng Tao, Bohan Zhuang.

## SELECTED AWARDS

Monash Graduate Scholarship	Oct 2020
• Adelaide Summer Research Scholarship	Apr 2019
• Outstanding Graduate in Harbin Institute of Technology	Jun 2019
Teaching Experience	
• FIT 5201 - Machine Learning, TA	Feb 2022 - Nov 2022
Professional Activities	

## Professional Activities

• Conference Reviewer : CVPR 2022, ICCV 2021, ECCV 2022, NeurIPS 2022