Zizheng Pan

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EDUCATION

- **Monash University** — Melbourne, Australia
  Ph.D. in Computer Science — Jan 2021 – 2024

- **The University of Adelaide** — Adelaide, Australia
  M.S. in Computer Science — Jul 2018 - Jul 2020

- **Harbin Institute of Technology** — Weihai, China
  B.E. in Software Engineering — Sep 2015 - Jun 2019

RESEARCH INTERESTS

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

PUBLICATIONS

(* denotes equal contribution)

- A Survey on Efficient Training of Transformers,
  Bohan Zhuang, Jing Liu, **Zizheng Pan**, Haoyu He, Yuetian Weng, Chunhua Shen
  International Joint Conference on Artificial Intelligence (**IJCAI**), 2023.

- Stitchable Neural Networks,
  Zizheng Pan, Jianfei Cai, Bohan Zhuang.
  Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023. (Highlight)

- Dynamic Focus-aware Positional Queries for Semantic Segmentation,
  Haoyu He, Jianfei Cai, **Zizheng Pan**, Jing Liu, Jing Zhang, Dacheng Tao, Bohan Zhuang.
  Conference on Computer Vision and Pattern Recognition (**CVPR**), 2023

- Fast Vision Transformers with HiLo Attention.
  Zizheng Pan, Jianfei Cai, Bohan Zhuang.
  Conference on Neural Information Processing Systems (**NeurIPS**), 2022. (Spotlight)

- 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)

- 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

- A Survey on Efficient Training of Transformers , on arXiv.
  Bohan Zhuang, Jing Liu, **Zizheng Pan**, Haoyu He, Yuetian Weng, Chunhua Shen

- 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.

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

- **Conference Reviewer** : CVPR 2022, ICCV 2021, ECCV 2022, NeurIPS 2022

Skills

- **Language:** English, Chinese

- **Coding:** Python, PyTorch, Git, CUDA