Dr. Qiuhong Ke

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Google scholar: https://scholar.google.com/citations?hl=en&user=84qxdhsAAAAJ (Citations: 3095, h-index: 21)

Education & Career Experience

Lecturer	Monash University (monash.edu)	2022 - present
Lecturer	University of Melbourne (unimelb.edu)	2020 – 2022
Postdoc	Saarland Informatics Campus, Max-Planck Institute (mpi-inf.mpg.de)	2018 – 2019
PhD student	University of Western Australia (uwa.edu)	2015 – 2018

Research Interests

Computer Vision, Deep Learning, Action Recognition, Action Prediction, Video Understanding

Selected Publications

- Peng, Duo, Qiuhong Ke, and Jun Liu. (2024) "UPAM: Unified Prompt Attack in Text-to-Image Generation Models Against Both Textual Filters and Visual Checkers." (ICML).
- Zhu, Anqi, Qiuhong Ke, Mingming Gong, and James Bailey. (2024) "Part-aware Unified Representation of Language and Skeleton for Zero-shot Action Recognition." (CVPR).
- Duo Peng, Li Xu, Qiuhong Ke, Ping Hu, Jun Liu. (2024). Joint attribute and model generalization learning for privacy-preserving action recognition. Neural Information Processing Systems (NeurIPS).
- Jiayang Ao, Qiuhong Ke, Krista A Ehinger. (2024). Amodal Intra-Class Instance Segmentation: Synthetic Datasets and Benchmark. Winter Conference on Applications of Computer Vision (WACV).
- Haitian He, Sarah Erfani, Mingming Gong, Qiuhong Ke. (2024). Learning Transferable Representations for Image Anomaly Localization Using Dense Pretraining. Winter Conference on Applications of Computer Vision (WACV).
- Zihan Yang, Richard O Sinnott, James Bailey, Qiuhong Ke. (2023). A survey of automated data augmentation algorithms for deep learning-based image classification tasks. Knowledge and Information Systems.
- Hongsang Yoo, Haopeng Li, Qiuhong Ke, Liangchen Liu, Rui Zhang. (2023). Precondition and effect reasoning for action recognition. Computer Vision and Image Understanding.
- Jianhong Pan, Siyuan Yang, Lin Geng Foo, Qiuhong Ke, Hossein Rahmani, Zhipeng Fan, Jun Liu. (2023). Progressive channel-shrinking network. IEEE Transactions on Multimedia.
- Jianhong Pan, Lin Geng Foo, Qichen Zheng, Zhipeng Fan, Hossein Rahmani, Qiuhong Ke, Jun Liu. (2023). Gradmdm: Adversarial attack on dynamic networks. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI).
- Jiayang Ao, Qiuhong Ke, Krista A Ehinger. (2023). Image amodal completion: A survey. Computer Vision and Image Understanding.
- Duo Peng, Ping Hu, Qiuhong Ke, Jun Liu. (2023). Diffusion-based image translation with label guidance for domain adaptive semantic segmentation. International Conference on Computer Vision (ICCV).
- Lin Geng Foo, Tianjiao Li, Hossein Rahmani, Qiuhong Ke, Jun Liu. (2023). Unified pose sequence modeling. Computer Vision and Pattern Recognition (CVPR).
- Jia Gong, Lin Geng Foo, Zhipeng Fan, Qiuhong Ke, Hossein Rahmani, Jun Liu. (2023). DiffPose: Toward More Reliable 3D Pose Estimation. Computer Vision and Pattern Recognition (CVPR).
- Haopeng Li, Qiuhong Ke, Mingming Gong, Tom Drummond. (2023). Progressive video summarization via multimodal self-supervised learning. Winter Conference on Applications of Computer Vision (WACV).
- Anqi Zhu, Qiuhong Ke, Mingming Gong, James Bailey. (2023). Adaptive local-component-aware graph convolutional network for one-shot skeleton-based action recognition. Winter Conference on Applications of Computer Vision (WACV).
- Jianhong Pan, Qichen Zheng, Zhipeng Fan, Hossein Rahmani, Qiuhong Ke, Jun Liu. (2022). Gradauto: Energy-oriented attack on dynamic neural networks. European Conference on Computer Vision (ECCV).
- Haopeng Li, Qiuhong Ke, Mingming Gong, Rui Zhang. (2022). Video joint modelling based on hierarchical transformer for co-summarization. IEEE Transactions on Pattern Analysis and Machine Intelligence (TPAMI).
- Zehua Sun, Qiuhong Ke, Hossein Rahmani, Mohammed Bennamoun, Gang Wang, Jun Liu. (2022). Human action recognition from various data modalities: A review. IEEE transactions on pattern analysis and machine intelligence (TPAMI).
- Ang Li, Shanshan Zhao, Qingjie Zhang, Qiuhong Ke. (2022). Iterative Geometry-Aware Cross Guidance Network for Stereo Image Inpainting. International Joint Conference on Artificial Intelligence (IJCAI).
- Lin Geng Foo, Tianjiao Li, Hossein Rahmani, Qiuhong Ke, Jun Liu. (2022). ERA: Expert Retrieval and Assembly for Early Action Prediction. European Conference on Computer Vision (ECCV).
- Jianhong Pan, Qichen Zheng, Zhipeng Fan, Hossein Rahmani, Qiuhong Ke, Jun Liu. (2022). GradAuto: Adversarial Attack. European Conference on Computer Vision (ECCV).
- Tianjiao Li, Lin Geng Foo, Qiuhong Ke, Hossein Rahmani, Anran Wang, Jinghua Wang, Jun Liu. (2022).

Dynamic Spatio-Temporal Specialization Learning for Fine-Grained Action Recognition. European Conference on Computer Vision (ECCV).

- Yunsheng Pang, Qiuhong Ke, Hossein Rahmani, James Bailey, Jun Liu. (2022). IGFormer: Interaction Graph Transformer for Skeleton-based Human Interaction Recognition. European Conference on Computer Vision (ECCV).
- Jia Gong, Zhipeng Fan, Qiuhong Ke, Hossein Rahmani, Jun Liu. (2022). Meta agent teaming active learning for pose estimation. Computer Vision and Pattern Recognition (CVPR).
- Rui Wang, Jun Liu, Qiuhong Ke, Duo Peng, Yinjie Lei. (2021). Dear-net: Learning diversities for skeleton-based early action recognition. IEEE Transactions on Multimedia.
- Shengzhe Zhao, Haopeng Li, Qiuhong Ke, Liangchen Liu, Rui Zhang. (2021). Action-vit: Pedestrian intent prediction in traffic scenes. IEEE Signal Processing Letters.
- Yimin Wei, Hao Liu, Tingting Xie, Qiuhong Ke, Yulan Guo. (2021). Spatial-Temporal Transformer for 3D Point Cloud Sequences. Winter Conference on Applications of Computer Vision (WACV).
- Ang Li, Qiuhong Ke, Xingjun Ma, Haiqin Weng, Zhiyuan Zong, Feng Xue, Rui Zhang. (2021). Noise Doesn't Lie: Towards Universal Detection of Deep Inpainting. International Joint Conference on Artificial Intelligence (IJCAI).
- Tianjiao Li, Qiuhong Ke, Hossein Rahmani, Rui En Ho, Henghui Ding, Jun Liu. (2021). Else-net: Elastic semantic network for continual action recognition from skeleton data. International Conference on Computer Vision (ICCV).
- Haoran Peng, He Huang, Li Xu, Tianjiao Li, Jun Liu, Hossein Rahmani, Qiuhong Ke, Zhicheng Guo, Cong Wu, Rongchang Li, Mang Ye, Jiahao Wang, Jiaxu Zhang, Yuanzhong Liu, Tao He, Fuwei Zhang, Xianbin Liu, Tao Lin. (2021). The Multi-Modal Video Reasoning and Analyzing Competition. International Conference on Computer Vision (ICCV).
- Qiuhong Ke, Mario Fritz, Bernt Schiele. (2021). Future moment assessment for action query. Winter Conference on Applications of Computer Vision (WACV).
- Yunxiang Zhao, Qiuhong Ke, Flip Korn, Jianzhong Qi, Rui Zhang. (2020). Hexcnn: A framework for native hexagonal convolutional neural networks. 2020 IEEE International Conference on Data Mining (ICDM).
- Yinjie Lei, Duo Peng, Pingping Zhang, Qiuhong Ke, Haifeng Li. (2020). Hierarchical paired channel fusion network for street scene change detection. IEEE Transactions on Image Processing.
- Qiuhong Ke, Mohammed Bennamoun, Hossein Rahmani, Senjian An, Ferdous Sohel, Farid Boussaid. (2019). Learning latent global network for skeleton-based action prediction. IEEE Transactions on Image Processing.
- Qiuhong Ke, Mario Fritz, Bernt Schiele. (2019). Time-Conditioned Action Anticipation in One Shot. Computer Vision and Pattern Recognition (CVPR).

Funding & Awards

Funding

- **Lise Meitner Award Fellowship:** $111,098 (2018-2019) from Max Planck Institute for Informatics.
- **ECR Grant:** $38,020 (2021) from the University of Melbourne.
- **Industry Grant:** $165,000 (2022-2025) from CurveBeam AI Ltd.
- **Advancing Women's Success Grant:** $10,844 (2023) from Monash University.
- **DECRA**: $481,962 (2025-2027).

Awards

- **Dean's List - Honourable Mention:** Recognised for an outstanding thesis at UWA, 2018.
- **1962 Medal:** Awarded by the Australian Computer Society WA for my research in video recognition technology, 2019 (one awarded annually).
- **APRS Early Career Researcher Award:** Received from the Australian Pattern Recognition Society, 2020 (one of four awarded nationwide).
- **Women Leading Tech Award (Education/Research):** Honoured by Atlassian, 2024 (one awarded nationwide in this category).
- **Outstanding Reviewer Award:** Presented by IEEE Transactions on Multimedia, 2022.

Supervision

- **Primary supervision:** Ang Li (Complete), Ming Cheng, Ruochong Shen, Weiqing Wang (waiting visa), Qingchun Ruan (waiting visa)
- **Co-supervision:** Shikun Zhang, Aijia Yang, Kunyuan Xie, Jing Xu, Ruturaj Reddy (MALAYSIA), Subramanian Muthusamy, Kaustubh Kundu
- **External supervision:** Zinuo Li, Haopeng Li (complete), Anqi Zhu, Jiayang Ao, Duo Peng