**Bo Miao**

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[**bo-miao.github.io/main**](https://bo-miao.github.io/main/)

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**RESEARCH INTERESTS**

* **Computer Vision, Video Understanding, Segmentation, Vision-and-Language, Human-centered AI**

# EDUCATION

**PhD in Computer Science,** University of Western Australia (Main Supervisor: Prof. Ajmal Mian) 2021-2025

**MSc in EE (Signal and Information Processing)**,University of Jinan 2015-2018

**BSc in EE (Communication Engineering)**,University of Jinan 2011-2015

**EMPLOYMENT**

**Research Assistant | The Chinese University of Hong Kong, Shenzhen | China** May 2020 – Dec 2020

* Conducted research on robot vision, including robot indoor navigation (first author paper published at the IROS conference) and video anomaly detection.

**Machine Learning Engineer | SINA Weibo (the Twitter of China) | China** Jul 2018 – Sep 2019

* Developed a machine learning-based recommendation system and leveraged data mining techniques to identify high-quality blog posts.
* Developed a data analysis and monitoring system to track key metrics and improve stability.

# SELECTED PUBLICATIONS

**Conference:**

* Referring Human Pose and Mask Estimation In the Wild

**Bo Miao**, M. Feng, Z. Wu, M. Bennamoun, Y. Gao, A. Mian

*Advances in Neural Information Processing Systems* (**NeurIPS**), 2024.

* External knowledge enhanced 3d scene generation from sketch

Z. Wu, M. Feng, Y. Wang, H. Xie, W. Dong, **Bo Miao**, A. Mian

*European Conference on Computer Vision* (**ECCV**), 2024.

* Spectrum-guided Multi-granularity Referring Video Object Segmentation

**Bo Miao**, M. Bennamoun, Y. Gao, A. Mian

*International Conference on Computer Vision* (**ICCV**), 2023.

* Regional Video Object Segmentation by Efficient Motion-Aware Mask Propagation

**Bo Miao**, M. Bennamoun, Y. Gao, A. Mian

*International Conference on Digital Image Computing: Techniques and Applications* (**DICTA**), 2023.

* Self-Supervised Video Object Segmentation by Motion-Aware Mask Propagation

**Bo Miao**, M. Bennamoun, Y. Gao, A. Mian

*IEEE International Conference on Multimedia and Expo* (**ICME**), 2022. (**Oral**)

* Object-to-Scene: Learning to Transfer Object Knowledge to Indoor Scene Recognition

**Bo Miao,** L. Zhou, A. Mian, T. L. Lam, Y. Xu

*IEEE/RSJ International Conference on Intelligent Robots and Systems* (**IROS**), 2021.

* Automated epileptic seizure detection method based on the multi-attribute EEG feature pool and mRMR feature selection method

**Bo Miao,** J. Guan, L. Zhang, Q. Meng, Y. Zhang

*International Conference on Computational Science* (**ICCS**), 2019. (**Oral**)

* A Feature Selection Method for Classification of ADHD

**Bo Miao,** Y. Zhang

*International conference on information, cybernetics and …* (**ICCSS**), 2017. (**Best Paper**)

**Journal:**

* Region Aware Video Object Segmentation with Deep Motion Modeling

**Bo Miao**, M. Bennamoun, Y. Gao, A. Mian

*IEEE Transactions on Image Processing* (**TIP**), 2024.

* Temporally Consistent Referring Video Object Segmentation with Hybrid Memory

**Bo Miao**, M. Bennamoun, Y. Gao, M. Shah, A. Mian

*IEEE Transactions on Circuits and Systems for Video Technology* (**TCSVT**), 2024.

* Context-Enhanced Video Moment Retrieval with Large Language Models

W. Liu, **Bo Miao**, J. Cao, X. Zhu, B. Liu, M. Nasim, A. Mian

Minor revisionin *IEEE Transactions on Multimedia* (**TMM**), 2024.

* Classification of ADHD individuals and neurotypicals using reliable RELIEF: A resting-state study

**Bo Miao**, L. Zhang, J. Guan, Q. Meng, Y. Zhang

*IEEE Access*, 2019.

**PROFESSIONAL ACTIVITIES**

# Conference Reviewer: NeurIPS, ICLR, CVPR, ICCV, ECCV, AAAI, IROS, ACCV, DICTA, etc.

# Journal Reviewer: TPAMI, IJCV, TIP, Neurocomputing, etc.

# Session Co-chair of IROS 2021 "Recognition"

**AWARDS**

# ARC-Funded PhD Full Scholarship

# ICCSS Best Paper Finalist

# UWA CSSE HDR Conference Excellent Presentation Award

# Third Place in the 5th LSVOS International Challenge (R-VOS Track) at ICCV2023

**ROFESSIONAL SKILLS**

# Coding: PyTorch, Python, C++, Java, Matlab, Latex, Shell

# Languages: Mandarin (native), English