

Education

- Oct.2020 – PhD, Computer Science, Queen Mary University of London, London.
April 2024 : Domain generalization, Multimodal learning, Person re-identification, Crowd counting
Sept.2017– Master, Signal and Information Processing, Sichuan University, Chengdu, China.
June 2020 : Low-level vision, Super-resolution, Image enhancement, Medical image processing
Sept.2013– Bachelor, Electronic and Information Engineering, Shandong Univ. of Tech, Zibo, China.
June 2017 : Object tracking, Automatic number plate recognition.

Work Experience

Queen Mary University of London (London, UK)

- Apr. 2024 – Postdoctoral Researcher, Computer Science.
Present : Conduct research under the supervision of Prof. Ahmed M. A. Sayed on federated learning with multi-client privacy, distributed cluster edge computing, and lightweight network design.

Veritone Limited (London Branch, US)

- Oct. 2022 – Video Analysis Algorithm Engineer (0.4 FET).
Apr. 2024 : Implement a large-scale pretrained model for object detection, utilizing domain generalization techniques to enhance the performance of the model in real-world scenarios.

Vision Semantics Limited (London, UK)

- July 2022 – Deep Learning Algorithm Engineer (Full-time).
Oct. 2022 : Improve person ReID framework that leverages foundation models such as ViT, CLIP, and BLIP to learn representative features for accurate retrieval among millions of pedestrians.

National University of Singapore (Singapore)

- Aug. 2020 – Research Assistant (Full-time).
Oct. 2020 : Worked on real-world image super-resolution images with deep learning.

Patents

- 2022.02.24 A sparse coding based infrared and visible image fusion method, First applicant, In Substantive examination stage, CN114066786A.
2021.03.22 An image super-resolution reconstruction method based on gated multi-feedback networks, First applicant, In Substantive examination stage, CN112508779A.
2021.03.18 Infrared and visible image fusion method based on coupling generation adversarial network, First applicant, In Substantive examination stage, CN112488970A.
2021.03.22 A multi-focus image fusion method based on sparse representation and guided filtering, Second applicant, In Substantive examination stage, CN112508828A.

Selected Publications (650+ citations)

Published 17 papers as the first author, including 13 papers indexed in SCI journals and 4 papers indexed in EI conferences. These include 11 papers in JCR Q1, 4 papers in the Chinese Academy of Sciences (CAS) Q1 top-tier, 1 paper in CAS Q2 top-tier, 1 ESI highly cited paper, and 3 CORE-A conference papers. †: Co-first author.).

Journal Paper

- [J1]. [Qilei Li](#), Mingliang Gao, Guisheng Zhang, et al., Towards Multimodal Disinformation Detection by Vision-Language Knowledge Interaction, In Information Fusion, 2024, Vol. 102, pp. 102037. [IF=14.8](#), [JCR Q1](#).
- [J2]. [Qilei Li](#), Mingliang Gao, Jinyong Chen, et al., Generic Vehicle Association in Transport System Guided by Foundational Models, In IEEE Transactions on Intelligent Transportation Systems, 2025, [JCR Q1](#), accept.
- [J3]. [Qilei Li](#), Jing-an Cheng, Mingliang Gao, et al., Traffic Density Estimation by Distributed Proxy Model Learning for Internet-of-Vehicle, In IEEE Internet of Things Journal, 2025, [JCR Q1](#), accept.
- [J4]. [Qilei Li](#), Lu Lu, Zhen Li, et al., Coupled GAN with Relativistic Discriminators for Infrared and Visible Images Fusion, In IEEE Sensors Journal, 2021, Vol. 21, No. 6, pp. 7458-7467, [ESI highly cited](#), [JCR Q1](#).
- [J5]. [Qilei Li](#), Wenhao Song, Mingliang Gao, et al. , Efficient Pansharpening by Joint-modality Recursive Training, In IEEE Journal of Selected Topics in Applied Earth Observations and Remote Sensing, 2024, Vol. 17, pp. 13376-13386. [JCR Q1](#).
- [J6]. [Qilei Li](#), Mingliang Gao, Guisheng Zhang, et al. , Defending Deepfakes by Saliency-Aware Attack, In IEEE Transactions on Computational Social Systems, Vol. 11, No. 4, pp. 5060-5067, Aug. 2024, [JCR Q1](#).
- [J7]. Jinyong Chen[†], [Qilei Li[†]](#), Mingliang Gao, et al., Towards Zero-shot Object Counting via Deep Spatial Prior Cross-modality Fusion, In Information Fusion, 2024, Vol. 111, pp. 102537. [IF=14.8](#), [JCR Q1](#).
- [J8]. Wenhao Song[†], [Qilei Li[†]](#), Mingliang Gao, et al., SFINet: A Semantic Feature Interactive Learning Network for Full-time Infrared and Visible Image Fusion, In Expert Systems with Applications, 2025, Vol. 261, pp. 125472, [JCR Q1](#).
- [J9]. Guisheng Zhang[†], [Qilei Li[†]](#), Mingliang Gao, et al., Space-Frequency and Global-Local Attentive Networks for Sequential Deepfake Detection, In IEEE Transactions on Computational Social Systems, accept, Feb. 2025, [JCR Q1](#).
- [J10]. Guisheng Zhang[†], [Qilei Li[†]](#), Mingliang Gao, et al., Towards Sequential Deepfake Detection Using Deep Learning for Privacy Protection, In IEEE Consumer Electronics Magazine, Vol. 14, No. 2, pp. 42-48, March 2025, [JCR Q1](#).
- [J11]. Siyou Guo[†], [Qilei Li[†]](#), Mingliang Gao, et al., Deep Learning-Based Face Forgery Detection for Facial Payment Systems, In IEEE Consumer Electronics Magazine, 2024, [JCR Q1](#), accept.
- [J12]. Siyou Guo[†], [Qilei Li[†]](#), Mingliang Gao, et al., Smart City Security: Fake News Detection in Consumer Electronics, In IEEE Consumer Electronics Magazine, 2024, [JCR Q1](#), accept.
- [J15]. Jing-an Cheng[†], [Qilei Li[†]](#), Alireza Souri, et al., Towards Trustworthy Crowd Counting by Distillation Hierarchical Mixture of Experts for Edge-based Cluster Computing, In Cluster Computing, 2025, [JCR Q1](#), , accept.

Conference Paper

- [C1]. [Qilei Li](#), Jiabo Huang, Jian Hu, et al., Feature-Distribution Perturbation and Calibration for Generalized ReID, In IEEE ICASSP, 2024, pp. 2880-2884. [CCF-B](#), [Oral](#), [EI](#).
- [C2]. [Qilei Li](#), Shaogang Gong, Mitigate Domain Shift by Primary-Auxiliary Objectives Association for Generalizing Person ReID, In IEEE WACV, 2024, pp. 394-403, [CORE-A](#), [EI](#).
- [C3]. [Qilei Li](#), Jiabo Huang, Shaogang Gong, Local-Global Associative Frame Assemble in Video Re-ID, In BMVC, 2021, [CORE-A](#), [CCF-C](#), [EI](#).
- [C4]. [Qilei Li[†]](#), Zhen Li[†], Lu Lu, Gwanggil Jeon, et al., Gated Multiple Feedback Network for Image Super-Resolution, In BMVC, 2019, [CORE-A](#), [CCF-C](#), [EI](#).

Professional Membership

ELLIS PhD Program Evaluator

BMVA Member

IEEE Member

Conference organization

- 2025.07 Workshop Chair, ICDCS 2025, EI Compendex, CCF-B.
Federated Learning for Wireless Edge Artificial Intelligence.
- 2024.11 Workshop Chair, ICCBD +AI 2024, EI Compendex.
Advancing AIGC: Faithful Generation and Trustworthy Identification.
- 2024.09 Workshop Chair, FEICT 2024, EI Compendex.
Computer Vision Technologies for Smart City Applications.
- 2023.09 Workshop Chair, SMC-IoT 2023, EI Compendex.
Image processing and deep learning Technologies in Communication.

Reviewers

IEEE Transactions on Artificial Intelligence

IEEE Transactions on Circuits and Systems for Video Technology

IEEE Transactions on Geoscience and Remote Sensing

IEEE Transactions on Image Processing

IEEE Transactions on Industrial Informatics

IEEE Transactions on Medical Imaging

IEEE Transactions on Neural Networks and Learning Systems

IEEE Transactions on Neural Systems and Rehabilitation Engineering

IEEE Transactions on Pattern Analysis and Machine Intelligence

IEEE Internet of Things Journal

Artificial Intelligence Review

Information Fusion

International Journal of Advanced Manufacturing Technology

Journal of Asian Architecture and Building Engineering

Journal of Computational Design and Engineering

Microscopy and Microanalysis

Network-Computation in Neural Systems

Teaching

ECS795P: Deep Learning and Computer Vision, QMUL

Operating system, Sichuan University

Electronic Design EDA, Sichuan University

Microcomputer principle and interface technology, Sichuan University