Jiayi Lin

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Brief Introduction

Jiayi Lin is a final-year Ph.D. Candidate in Computer Science at Queen Mary University of London, working under Prof. Shaogang (Sean) Gong's supervision. Her research centers on computer vision (particularly object detection and segmentation) and Neuro-Symbolic Learning.

Education

2021-25*	Ph.D., Computer Science, Queen Mary University of London
2018-21	M.A., Artificial Intelligence, University of Chinese Academy of Sciences
2014-18	B.Sc., Software Engineering, Sun Yat-Sen University

Research Experience

2021-25*	Visual Recognition and Self-Supervised Learning
	PhD student, Queen Mary University of London (Advisor: Prof. Shaogang Gong)
2021-21	Human Pose-Estimation
	Intern, Watrix (Advisor: Dr. Xuecai Hu)
2018-21	Image and Video Super-Resolution
	Master Student, National Laboratory of Pattern Recognition, Institute of Automa-
	tion, Chinese Academy of Sciences (Advisor: Prof. Liang Wang)
2018-19	Neural Network Acceleration on FPGA
	Intern, Institute of Computing Technology, Chinese Academy of Sciences (Advisor:
	Prof. Lei Zhang)
2017-18	Control System for Autonomous Vehicles, Position and Pose Estimation
	Undergraduate student, Robotic and Intelligence Computing Lab, Sun Yat-Sen Uni-
	versity (Advisor: Prof. Long Chen)

Publications

Peer-reviewed Conference Proceedings

C1. Jiayi Lin, Jiabo Huang, Jian Hu & Shaogang Gong. InvSeg: Test-Time Prompt Inversion for Semantic Segmentation in Proceedings of the AAAI Conference on Artificial Intelligence (2025).

^{*:} Expected.

^{†:} Equal contribution.

- C2. Jian Hu, **Jiayi Lin**, Junchi Yan & Shaogang Gong. Leveraging Hallucinations to Reduce Manual Prompt Dependency in Promptable Segmentation in The Thirty-eighth Annual Conference on Neural Information Processing Systems (2024).
- C3. Jian Hu⁺, **Jiayi Lin**⁺, Shaogang Gong & Weitong Cai. Relax Image-Specific Prompt Requirement in SAM: A Single Generic Prompt for Segmenting Camouflaged Objects in Proceedings of the AAAI Conference on Artificial Intelligence **38** (2024).

Journal Articles

- J1. Jian Hu⁺, **Jiayi Lin**⁺, Shaogang Gong & Weitong Cai. Is Instance-specific Manual Prompt Necessary for Promptable Semantic Segmentation? *IEEE Transactions on Pattern Analysis and Machine Intelligence (Under Review)* (2024).
- J2. **Jiayi Lin**, Shitong Sun & Shaogang Gong. GridCLIP: One-Stage Object Detection by Grid-Level CLIP Representation Learning. *Pattern Recognition(Under Review)* (2024).

Teaching

Queen Mary University of London

2024	Teaching Assistant (Leader), Deep Learning and Computer Vision (ECS795)
2023	Teaching Assistant, Deep Learning and Computer Vision (ECS795)
2022	Teaching Assistant, Artificial Intelligence (ECS759P)

Academic Service

2024 Reviewer for WACV2025

Scholarships

2024 Queen Mary Postgraduate Research Fund

£1500

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