DR. FENG CHEN

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RESEARCH INTERESTS

• Artificial Intelligence (AI), Computer Vision, AI in Agriculture and Plant Science PROFESSIONAL EXPERIENCE		
 Advisors: Prof. Sotirios A. Tsaftaris, Dr. Mario Valerio Giuffrida Funded by: UKRI-BBSRC Grant: PhenomUK-RI The UK Plant and Crop Phenotyping Infrastructu (ref: BB/Y512333/1) (£2,379,992), 02/2023 - 02/2025 Developed AI system for automating and improving plant phenotype analysis 	ıre	
Teaching Assistant, The University of Nottingham	09/2018 - 05/2021	
• Tutored and assessed coursework in three courses: Fundamental of AI, Machine Learning, and Comp	outer Vision	
EDUCATION		
Ph.D. in Computer Science, Computer Vision Lab, The University of Nottingham, U.K.	2018 - 2022	
Supervisors: Prof. Andrew P. French, Prof. Tony PridmoreThesis: Learning with Fewer Labels in Deep Learning for Plant Phenotyping		
M.Sc. in Signal Processing and Communications, The University of Edinburgh, U.K.	2016 - 2017	
 Supervisor: Prof. Sotirios A. Tsaftaris Thesis: Citizen Scientists and Machine Learning to Help Feed the World (Best Thesis Award) 		
B.Eng. in Electronic and Information Engineering, Shantou University, China	2012 - 2016	
Supervisor: Prof. Zhun FanThesis: Unsupervised Brain MRI Segmentation		
Visiting Student, The Chinese University of Hong Kong (CUHK), China Visiting Student, University of Calgary, Canada	06 - 08/2015 09 - 12/2014	
AWARDED GRANTS		

Co-PI, Agricultural Foundation Models via Domain-Specific Pre-Training, Microsoft Accelerate Foundation Models Research Grant (\$20,000 USD) 09/2023 - 06/2025

PUBLICATIONS

Conferences:

- Feng Chen, Sotirios A. Tsaftaris, Mario Valerio Giuffrida, *GMT: Guided Mask Transformer for Leaf Instance Segmentation*, Winter Conference on Applications of Computer Vision (WACV), 2025 (Oral Presentation)
- Feng Chen, Sotirios A. Tsaftaris, Mario Valerio Giuffrida, *PhenoGPT: Towards Language Interaction with Vision Models* for *Plant Phenotyping*, European Conference on Computer Vision (ECCV) Workshops, 2024
- Feng Chen, Mario Valerio Giuffrida, Sotirios A. Tsaftaris, *Adapting Vision Foundation Models for Plant Phenotyping*, International Conference on Computer Vision (ICCV) Workshops, 2023
- Feng Chen, Michael Pound, Andrew P. French, *Learning to Localise and Count with Incomplete Dot-annotations*, International Conference on Computer Vision (ICCV) Workshops, 2021
- Feng Chen, Andrew French, Tony Pridmore, Using Active Learning to Reduce Training Data in Deep-learning-based Flower Classification, Computer Vision and Pattern Recognition Conference (CVPR) Workshops, 2019
- John Atanbori, Feng Chen, Andrew P. French, Tony Pridmore, *Towards Low-cost Image-based Plant Phenotyping Using Reduced-parameter CNN*, The British Machine Vision Conference (BMVC) Workshops, 2018

Journals:

• Mario V. Giuffrida, Feng Chen, Hanno Scharr, and Sotirios A. Tsaftaris, *Citizen Crowds and Experts: Observer Variability* in Image-based Plant Phenotyping, Plant Methods, 2018

Books:

• Zi Li, Feng Chen, Xuying Hu, Access Database System and Design, Science Press, Beijing (ISBN: 978-7-03-052701-1)

In progress:

• Large language model-based system for plant image analysis

ACADEMIC SERVICE

Conference/Workshop Organising:	
• The 9th workshop on Computer Vision in Plant Phenotyping and Agriculture (CVPPA)	Milan, ECCV 2024
• The 8th workshop on Computer Vision in Plant Phenotyping and Agriculture (CVPPA)	Paris, ICCV 2023
Invited Talks:	
• (Keynote Speaker) AI for Efficient and Accessible Plant Phenotyping Phenom Workshop, University of Nottingham, 12/2024	UK & AIBIO-UK Joint
• Accelerating Plant Phenotyping with AI UK Plant Phenomics Conference, Universit	ty of Warwick, $09/2024$
• Retrieval-Augmented Generation: A Promising Approach to Enhance Fairness and Use of Large Language Models for Agriculture PhenoHarmonIS Workshop, Institut	Transparency in the Agro (France) 05/2024
• Citizen Scientists and Machine Learning to Help Feed the World Univer	sity of Oxford, $04/2018$
Peer Review Services:	
• Conferences: ICCV, ECCV, BMVC	
• Journals: Nature Scientific Data, Applied Intelligence, Computers and Electronics in Agriculture, Journal of Horticultural Science and Biotechnology	, Plant Phenomics, The
SUPERVISION	
• Ziyu Huang (master thesis, distinction awarded), The University of Edinburgh	10/2023 - 09/2024
• Jingyu Sun (undergraduate summer intern), The University of Edinburgh	06/2024 - 09/2024
OTHER WORKING EXPERIENCE	
Research Assistant in Action Recognition, The University of Nottingham	09/2022 - 12/2022
• Advisor: Prof. Joel Fischer	
• Developed real-time action recognition solutions for cat-robotic arm interaction	
Research Assistant in AI for Phenotyping, The University of Nottingham	09/2021 - 05/2022
• Advisor: Prof. Tony Pridmore	
• Collated visual plant phenotyping datasets	
Residential Tutor , University of Nottingham	09/2020 - 08/2021
• Supported students' welfare at a 2,000-under/postgraduate University hall (Broadgate Park) (1-we	ek training completed)
Global Buddies Mentor, University of Nottingham	09/2019 - 12/2019
• Organised events for international students to adapt to campus life (1-week training provided)	
English-Chinese Translator/Interpreter, University of Nottingham	10/2019 - 11/2019
• Interpreted machine learning-related lectures on-site for visiting scholars from China	
MAIN HONOURS	
British Machine Vision Conference (BMVC) Outstanding Reviewers, BMVA	2024
International PhD Student Full Scholarship, The University of Nottingham	2018 - 2021
Best Master Thesis Award, School of Engineering, The University of Edinburgh	11/2017
National Scholarship (top 0.2% nationally), Shantou University	06/2016
Shantou University Medal Nomination (the highest honor for graduates), Shantou University	06/2016
First-class Scholarship for Overseas Study (for MSc), Li Ka Shing Foundation/Shantou University	y 06/2016
Scholarship for International Summer School in CUHK, Shantou University	05/2015

First-class Scholarship for Academic Excellence, Shantou University

2015 and 2014, respectively