

Yihang She

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Mount Pleasant Halls
St Edmund's College
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EDUCATION

University of Cambridge <i>MRes+PhD Student in Computer Science, affiliated with AI4ER CDT and 4C</i> <i>Supervisors: Srinivasan Keshav, Andrew Blake and David Coomes</i>	Cambridge, United Kingdom Oct. 2022 – Dec. 2026 (expected)
ETH Zurich <i>MSc in Geomatics, advised by Konrad Schindler, GPA: 5.3/6.0</i>	Zurich, Switzerland Sep. 2019 – June 2022
Nanjing University <i>BSc in Geographic Information Science, GPA: 4.6/5.0</i> <i>Exchange student, University of California, Berkeley, GPA: 3.9/4.0</i>	Nanjing, China Sep. 2015 – July 2019 Jan. 2018 – May 2018

RESEARCH THEMES

3D Vision, Physics-Informed Machine Learning, Synthetic Data, Earth Observations, AI4Science

PREPRINTS AND PUBLICATIONS

PILA: Physics-Informed Low Rank Augmentation for Interpretable Earth Observation

Yihang She, Andrew Blake, Clement Atzberger, Srinivasan Keshav
Preprint. Under review at *Journal of Machine Learning Research*

Scaling Up Forest Vision with Synthetic Data

Yihang She, Andrew Blake, David Coomes, Srinivasan Keshav
Preprint. Under review at *International Journal of Computer Vision*

SPREAD: A Large-Scale, High-Fidelity Synthetic Dataset for Multiple Forest Vision Tasks

Zhengpeng Feng, **Yihang She**, Srinivasan Keshav
Ecological Informatics, 2025.

Fast Hierarchical Learning for Few-Shot Object Detection

Yihang She, Goutam Bhat, Martin Danelljan, Fisher Yu
IEEE/RSJ International Conference on Intelligent Robots and Systems (IROS), 2022

Digital Taxonomist: Identifying Plant Species in Citizen Scientists' Photographs

Riccardo de Lutio, **Yihang She**, Stefano D'Aronco, Stefania Russo, Phillipp Brun, Jan Dirk Wegner, Konrad Schindler
ISPRS Journal of Photogrammetry and Remote Sensing, 2021

Strong Regulation of Daily Variations in Nighttime Surface Urban Heat Islands by Meteorological Variables across Global Cities

Yihang She *, Zihan Liu *, Wenfeng Zhan, Jiameng Lai, Fan Huang (* equal contributions)
Environmental Research Letters, 2021

SELECTED TRAINING PROJECTS

EnterpriseTECH Cohort 16, Judge Business School <i>Lectures and supervisions that transform researchers into innovators and entrepreneurs</i>	Nov. 2024 – Jan. 2025 Cambridge, United Kingdom
Deep Learning for Road Segmentation <i>Course Project under Prof. Thomas Hofmann, Computational Intelligence Lab</i>	Feb. 2020 – July 2020 ETH Zurich, Switzerland
Language Teacher from Augmented Reality <i>Course Project under Prof. Marc Pollefeys, 3D Vision Lab</i>	Feb. 2020 – June 2020 ETH Zurich, Switzerland

WORKING EXPERIENCES

Intern at Elevate3D <i>Adapted advanced segmentation models for NeRF-based 3D reconstruction</i>	July 2022 – Sep. 2022 Zurich, Switzerland
Research Assistant at ETH Zurich <i>Extended the crop mapping model ms-convSTAR to whole Switzerland</i>	Apr. 2022 – Aug. 2022 Zurich, Switzerland
Mitacs Canada Research Intern <i>Conducted literature review to identify the research gaps of Community Forestry</i>	June 2018 – Sep. 2018 Winnipeg, Canada

CONFERENCE, WORKSHOP, AND SUMMER SCHOOL

International Computer Vision Summer School 2024 <i>Offered to selected PhD students: 30 hours of lectures from world-renowned experts</i>	Sicily, 7-13 July, 2024
ICLR 2024 Climate Change AI Workshop <i>Poster presentation of my MRes project on inverting the radiative transfer model</i>	Vienna, 11 May, 2024
ELLIS Computer Vision Workshop <i>Poster presentation and talks by ELLIS Fellows in Computer Vision from European labs</i>	Modena, 9-12 April, 2024
International Conference on Intelligent Robots and Systems <i>Oral presentation on fast few-shot object detection based on my master's thesis.</i>	Kyoto, 23-27 October, 2022

TEACHING AND DEMONSTRATION

Supervision for Part IB Further Graphics	Cambridge, Michealmas 2024, 2025
Demonstration at Computer Lab Undergraduate Open Days	Cambridge, Summer 2024
Supervision for Part IB Artificial Intelligence	Cambridge, Easter 2024
Demonstration at Cambridge Festival	Cambridge, Lent 2024, 2026
Volunteer for Q&A at Cambridge Zero Community Day	Cambridge, Lent 2024

SELECTED HONOURS AND AWARDS

St Edmund's College Instrumental Award	University of Cambridge, 2024
Choral Exhibition Award	University of Cambridge, 2023
Cambridge Centre for Carbon Credits PhD Fellowship	University of Cambridge, 2022-26
ESRI Student of the Year Prize	ESRI, Inc., 2021
Excellence Scholarship and Opportunity Program	ETH Zurich, 2019-2022
Outstanding Graduate	Nanjing University, 2019
National Scholarship	Ministry of Education of China, 2016

TECHNICAL SKILLS

Hands-on Experience: Self-supervised Learning, Hybrid Modelling, Earth Observation, and LiDAR
Developer Tools: PyTorch, VS Code, Git, MatLab, Visual Studio, Google Earth Engine, Unreal Engine
Languages: Chinese (native), English (TOEFL iBT: 111/120), Basic Korean and German

HOBBIES

Choral Singing (Tenor, Chapel Schola), Chinese Calligraphy, Skiing, and Reading