

SHENG, Dong 盛东

PhD cand. @ School of Engineering, Westlake University.

Email: sheng-dong@outlook.com; shengdong@westlake.edu.cn[Website](#) | ORCID: 0000-0001-5658-5771**RESEARCH INTEREST**

Agroecology, Pollination, Microplastics, Climate Change, Ecosystem Services, Artificial Intelligence, Computer Vision, System modelling

EDUCATION

PhD candidate in Environmental Sciences & Engineering	2023 Sept – present
School of Engineering, Westlake University (joint program with Zhejiang University)	
Supervisors: Thomas Cherico Wanger & Ling Li (李凌)	
Visiting PhD student	2025 Sept – present
Department of Plant Production Systems, Agroscope	
Supervisor: Thomas Cherico Wanger	
Bachelor of Science in Environmental Sciences	2019 Sept – 2023 Jun
College of Environmental & Resource Sciences, Zhejiang University	
General GPA = 3.81/4.00	
Minor in Advanced Honor Class of Engineering Education	2020 Sept – 2023 Jun
Chu Kochen Honors College, Zhejiang University	

MEMBERSHIPS

Student Member The Ecological Society of America	2024 – present
Core Member The Scientists' Coalition for an Effective Plastics Treaty	2025 – present

PUBLICATIONS

- Xu, W., Barzegar, S. G., **Sheng, D.**, Toledo-Hernández, M., Lan, Z., & Wanger, T. C. (2025). Identifying Cocoa Flower Visitors: A Deep Learning Dataset. *Scientific Data*, 12(1), 1309.
<https://doi.org/10.1038/s41597-025-05631-3>
- Sheng, D.**, Jing, S., He, X., Klein, A.-M., Köhler, H.-R., & Wanger, T. C. (2024). Plastic pollution in agricultural landscapes: An overlooked threat to pollination, biocontrol and food security. *Nature Communications*, 15(1), 8413. <https://doi.org/10.1038/s41467-024-52734-3>
- Darras, K. F. A., Balle, M., Xu, W., Yan, Y., Zakka, V. G., Toledo - Hernández, M., **Sheng, D.**, Lin, W., Zhang, B., Lan, Z., Fupeng, L., & Wanger, T. C. (2024). Eyes on nature: Embedded vision cameras for terrestrial biodiversity monitoring. *Methods in Ecology and Evolution*, 2041-210X.14436.
<https://doi.org/10.1111/2041-210X.14436>
- Sheng, D.**, Chen, M., Chen, Q., Huang, Y. (2022). Opposite selection effects of nZVI and PAHs on bacterial community composition revealed by universal and sphingomonads-specific 16SrRNA primers. *Environmental Pollution*, 311, 119893. <https://doi.org/10.1016/j.envpol.2022.119893>

CONFERENCES & PRESENTATIONS

The 2024 Annual Meeting of the Ecological Society of America, Long Beach, California, United States.

(2024, August 8). Title: *Long-term exposure to microplastics and heat affects bumblebee colony development, behavior patterns and social networks.*

Westlake University Interdisciplinary Frontier Forum on Sustainable Development and Environmental Sciences, Hangzhou, Zhejiang , China. (2024, March 31). Title: *Nano/microplastic effects in agricultural landscapes: an overlooked threat to pollination, biological pest control and food security*

PATENTS

Wanger, T. C., **Sheng, D.**, Wang, L., Yuan, X. (2023). *Detection method and apparatus, object monitoring system, computing device, and storage medium* (CN 120124651 A / US 20250190729 A1). China National Intellectual Property Administration, 2025-06-10 / United States Patent and Trademark Office, 2025-06-12.

SELECTED HONORS & AWARDS

Award of Honor for Graduate Zhejiang University	2024
Exploration Award Westlake University	2024
Certificate of Chu Kochen Honors Program Zhejiang University	2023
The 18th Zhejiang Province “Challenge Cup” Academic and Technological Competition for College Students (Silver Award)	2023
Interdisciplinary Contest in Modeling (Honorable Mention) The Consortium for Mathematics and Its Application	2022
Zhejiang University – Jiande Scholarship (Second Prize)	2021
Zhejiang Province Physics Innovation (Theoretical) Competition for College Students (First Prize) Zhejiang Physical Society	2020
Zhejiang University Scholarship (Second Prize)	2019

OTHER EXPERIENCES

Visiting student SASE Lab, Westlake University	2022 May – 2023 Aug
Bioinformatics analysis (supervised by Dr. Yili Huang) Zhejiang University	2021 Nov – 2022 Sept
Internship Zhejiang Ecology & Environment Design and Research Institute	2022 Jul – 2022 Sept
Summer session University of California, Berkeley.	2021 Aug
Environmental Earth Sciences (EPS-80), A-	

SKILLS

Software: Python, MATLAB, R, C/C++, CAD, SolidWorks, SketchUp
Experiment: Raman spectrum, optical microscope, basic chemical/biological experiments
Data analysis: machine learning, computer vision, meta-analysis