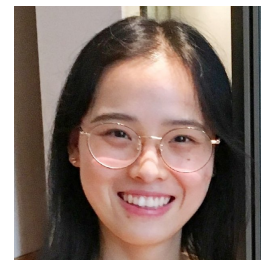


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Geography
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Short presentation

I am passionate about using deep learning to decode earth observations (e.g., satellite images) and to understand terrestrial ecosystems in a changing climate. Application-wise, I am interested in physical climate risk assessment and nature-based solutions to climate change.

Qualifications

Natural Resources Management, MSc, University of Twente
1 Sep 2017 → 22 Mar 2019
Award Date: 22 Mar 2019

Geographical Information Science, BSc, Wuhan University
1 Sep 2013 → 30 Jun 2017
Award Date: 30 Jun 2017

Research outputs

Delineating Standing Deadwood in High-Resolution RGB Drone Imagery

Möhring, J., Mosig, C., Cheng, Y., Mahecha, M. D., Priego, O. P., Beloiu, M., Volpi, M., Horion, S., Latifi, H., Shafeian, E., Fassnacht, F., Montero, D., Zielewska-Büttner, K., Laliberté, E., Cloutier, M., Schmehl, M-T., Frick, A., Müller-Landau, H., Cushman, K.C., Hupy, J. & 11 others, Ma, Q., Su, Y., Khatri-Chhetri, P., Kruse, S., Frey, J., Schiefer, F., Junttila, S., Potts, A., Uhl, A., Rossi, C. & Kattenborn, T., 15 Mar 2024.

High-resolution mapping of tree mortality in European forests

Cheng, Yan, Oehmcke, Stefan, Mosig, C., Beloiu, M., Kattenborn, T., Abel, Christin, Gominski, Dimitri Pierre Johannes, Nord-Larsen, Thomas, Fensholt, Rasmus & Horion, Stéphanie, 11 Mar 2024.

Mapping Tree Mortality at Global Scale Using Sentinel-2

Mosig, C., Mahecha, M. D., Montero, D., Cheng, Y., Perez-Priego, O., Beloiu, M., Volpi, M., Horion, S., Latifi, H., Shafeian, E., Fassnacht, F., Ganz, S., Zielewska-Büttner, K., Laliberté, E., Cloutier, M., Schmehl, M-T., Frick, A., Müller-Landau, H., Cushman, K.C., Hupy, J. & 11 others, Ma, Q., Su, Y., Khatri-Chhetri, P., Kruse, S., Frey, J., Schiefer, F., Junttila, S., Potts, A., Uhl, A., Rossi, C. & Kattenborn, T., 11 Mar 2024.

deadtrees.earth - an open, dynamic database for accessing, contributing, analyzing, and visualizing remote sensing-based tree mortality data

Kattenborn, T., Mosig, C., Pratima, K., Frey, J., Perez-Priego, O., Schiefer, F., Cheng, Yan, Potts, A., Jehle, J., Mälicke, M. & Mahecha, M. D., 9 Mar 2024.

Scattered tree death contributes to substantial forest loss in California

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Rosenthal, L., Das, A., Vrieling, A., Saatchi, S., Wagner, F., Mugabowindekwe, Maurice, Verbruggen, Wim, Beier, Claus & Horion, Stéphanie, 2024, In: Nature Communications. 15, 1, p. 1-13 641.

A framework to assess multi-hazard physical climate risk for power generation projects from publicly-accessible sources

Luo, T., Cheng, Yan, Falzon, J., Kölbl, J., Zhou, L., Wu, Y. & Habchi, A., 2023, In: Communications Earth and Environment. 4, 13 p., 117.

MAPPING TREE MORTALITY IN CALIFORNIA FROM VERY HIGH RESOLUTION IMAGERY USING DEEP LEARNING

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Das, A., Rosenthal, L., Saatchi, S., Wagner, F., Vrieling, A., Verbruggen, Wim, Beier, Claus & Horion, Stéphanie, 2023.

Mapping and characterising tree mortality in California at individual tree level using deep learning

Cheng, Yan, Oehmcke, Stefan, Brandt, Martin Stefan, Das, A., Rosenthal, L., Saatchi, S., Wagner, F., Verbruggen, Wim, Vrieling, A., Beier, Claus & Horion, Stéphanie, 2023. 1 p.

Quantifying Tree Mortality Drivers - a Case Study in a Boreal Forest

Jääskeläinen, J., Junttila, S., O'Sullivan, H., Cheng, Yan, Horion, Stéphanie & Vastaranta, M., 2023, SSRN: Social Science Research Network, 50 p.

Seasonal-Trend Time Series Decomposition on Graphics Processing Units

Serykh, Dmitry, Oehmcke, Stefan, Oancea, Cosmin Eugen, Masiliunas, D., Verbesselt, J., Cheng, Yan, Horion, Stéphanie, Gieseke, F. & Hinnerkov, Nikolaj Hey, 2023, *Proceedings - 2023 IEEE International Conference on Big Data, BigData 2023*. He, J., Palpanas, T., Hu, X., Cuzzocrea, A., Dou, D., Slezak, D., Wang, W., Gruca, A., Lin, J. C-W. & Agrawal, R. (eds.). IEEE, p. 5914-5923 10 p.

Identification of temporary livestock enclosures in Kenya from multi-temporal PlanetScope imagery

Vrieling, A., Fava, F., Leitner, S., Merbold, L., Cheng, Yan, Nakalema, T., Groen, T. & Butterbach-Bahl, K., 2022, In: *Remote Sensing of Environment*. 279, 15 p., 113110.

Assessing Physical Climate Risks for the European Bank for Reconstruction and Development's Power Generation Project Investment Portfolio

Luo, T., Zhou, L., Falzon, J., Cheng, Yan, Christianson, G., Wu, Y. & Habchi, A., 9 Dec 2021, World Resources Institute, 48 p.

Phenology of short vegetation cycles in a Kenyan rangeland from PlanetScope and Sentinel-2

Cheng, Yan, Vrieling, A., Fava, F., Meroni, M., Marshall, M. & Gachoki, S., 2020, In: *Remote Sensing of Environment*. 248, 20 p., 112004.

Employment

PhD fellow

Geography 2

København K, Denmark

1 Sep 2021 → nu

Remote sensing specialist

DHI

Denmark

18 Jul 2022 → nu

Data Analyst

World Resources Institute

United States

18 Jan 2021 → 25 Aug 2021

AiO/Research Assistant

University of Twente

Netherlands

2 Dec 2019 → 1 Dec 2020

Intern, Esri (Redlands, CA)

31 May 2019 → 18 Oct 2019

Activities

ETH Zurich

Cheng, Yan (Visiting researcher)
Feb 2024 → Mar 2024

Southern University of Science and Technology

Cheng, Yan (Visiting researcher)
Dec 2023

Wuhan University

Cheng, Yan (Visiting researcher)
Dec 2023

USGS

Cheng, Yan (Visiting researcher)
Jul 2023

Teaching assistant for the MSc course - "Satellite Image Processing and Analysis in the Big Data Era"

Cheng, Yan (Other)
Apr 2023 → Jun 2023

Prizes

DDSA Travel Grant 2023

Cheng, Yan (Recipient), Jun 2023

IEEE Geoscience and Remote Sensing Society Travel Grant

Cheng, Yan (Recipient), May 2023

ITC Excellence Scholarship

Cheng, Yan (Recipient), Apr 2017