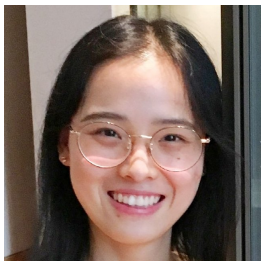
Yan Cheng
PhD fellow
Geography
Postal address:
Øster Voldgade 10, København K
Email: yach@ign.ku.dk
Phone: +4535322350
Web: https://ign.ku.dk/
Personal website: https://yancheng-go.github.io/



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, KC., 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, KC., 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.

Quantifying Tree Mortality Drivers - a Case Study in a Boreal Forest
Jääskeläinen, J., Junttila, S., O'Sullivan, H., Cheng, Yan, Horion, Stéphanie & Vastaranta, M., 11 Nov 2023, (FORECO-D-23-02383).

A framework to assess multi-hazard physical climate risk for power generation projects from publicly-accessible sources
Luo, T., Cheng, Yan, Falzon, J., Kölbel, 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.

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. & Hinnerskov, 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