

Biographical Sketch
CHARLES S. (CHARLIE) ZENDER

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a. PROFESSIONAL PREPARATION

| | | | |
|-----------------------------------|---------------------|---------|-----------|
| Harvard University, Cambridge MA | Physics | B.A. | 1990 |
| University of Colorado at Boulder | Atmospheric Science | Ph.D. | 1996 |
| NCAR Advanced Studies Program | Clouds & Aerosols | Postdoc | 1996–1998 |

b. APPOINTMENTS

7/12– Professor of Computer Science, University of California, Irvine (UCI)
7/10– Professor of Earth System Science, UCI
9/10–8/13 Vice Chair of Graduate Studies, Department of Earth System Science, UCI
7/05–6/10 Associate Professor of Earth System Science, UCI
8/07–8/08 Visiting Researcher, Laboratoire de Glaciologie et Géophysique de
l’Environnement (CNRS/LGGE), Grenoble, France
3/00–2/06 Affiliate Scientist, Climate and Global Dynamics (CGD) Division, National
Center for Atmospheric Research (NCAR), Boulder, CO
7/99–6/05 Assistant Professor of Earth System Science, UCI
7/98–9/99 Visiting Scientist, Atmospheric Chemistry and CGD Divisions, NCAR
7/96–6/98 Postdoctoral Fellow, Advanced Studies Program, NCAR
8/91–6/96 Graduate Research Assistant, University of Colorado at Boulder and NCAR

c. (i). FIVE PUBLICATIONS RELATED TO PROPOSED TOPIC (author is/was in our group: *high school, **undergraduate, *graduate student, †post-doc, ‡researcher)**

Evans, K. .J., J. H. Kennedy, D. Lu, M. M. Forrester, S. Price, J. Fyke, A. R. Bennett, M. Hoffman, M. Vizcaino, I. Tezaur, and **C. S. Zender** (2019), LIVVkit 2.1: Automated and extensible ice sheet model validation, *Geosci. Model Dev.*, **12**, 1067–1086, doi:10.5194/gmd-2018-70. ([PDF](#))

Silver, J. D. and **C. S. Zender** (2017), The compression-error trade-off for large gridded data sets, *Geosci. Model Dev.*, **10**, 413–423, doi:10.5194/gmd-10-413-2017. ([PDF](#))

Zender, C. S. (2016), Bit Grooming: Statistically accurate precision-preserving quantization with compression, evaluated in the netCDF Operators (NCO, v4.4.8+), *Geosci. Model Dev.*, **9**, 3199–3211, doi:10.5194/gmd-9-3199-2016. ([PDF](#))

Zender, C. S. (2008), Analysis of Self-describing Gridded Geoscience Data with netCDF Operators (NCO), *Environ. Modell. Softw.*, **23**(10), 1338–1342, doi:10.1016/j.envsoft.2008.03.004. ([PDF](#))

Zender, C. S., and [‡]**H. J. Mangalam** (2007), Scaling Properties of Common Statistical Operators for Gridded Datasets, *Int. J. High Perform. Comput. Appl.*, **21**(4), 485–498, doi:10.1177/1094342007083802. ([PDF](#))

c. (ii). FIVE ADDITIONAL PUBLICATIONS

[†]**Dang, C.**, **C. S. Zender**, ***M. G. Flanner** (2019), Inter-comparison and improvement of 2-stream shortwave radiative transfer models for unified treatment of cryospheric surfaces in ESMs, *The Cryosphere Discuss.*, doi:10.5194/tc-2019-22. ([PDF](#))

Stephenson, S. R., [†]**W. Wang**, **C. S. Zender**, H. Wang, S. Davis, and P. J. Rasch (2018), Climatic Responses to Future Trans-Arctic Shipping, **45**, *Geophys. Res. Lett.*, doi:10.1029/2018GL078969. ([PDF](#))

Zender, C. S., P. J. T. Leonard (2016), and the NASA Dataset Interoperability Working Group (DIWG), ESDS-RFC-028: Dataset Interoperability Recommendations for Earth Science, National Aeronautics and Space Administration (NASA) Earth Science Data Systems (ESDS) Standards Office (ESO), Washington, DC. ([PDF](#))

***Wang, D. L.**, **C. S. Zender**, and S. F. Jenks (2008), Cluster Workflow Execution of Retargeted Data Analysis Scripts, in *Cluster Computing and the Grid, 2008. CCGRID '08. 8th IEEE International Symposium on. Lyon, France, 19–22 May, 2008*. IEEE Computer Society, 449–458, doi:10.1109/CCGRID.2008.69. ([PDF](#))

***Wang, D. L.**, **C. S. Zender**, and S. F. Jenks (2007), Server-side parallel data reduction and analysis, in *Advances in Grid and Pervasive Computing, Second International Conference on, GPC 2007, Paris, France, May 2–4, 2007, Proceedings*. IEEE Lecture Notes in Computer Science, vol. 4459, edited by C. Cérin and K.-C. Li, pp. 744–750, Springer-Verlag, Berlin/Heidelberg, doi:10.1007/978-3-540-72360-8_67. ([PDF](#))

d. SYNERGISTIC ACTIVITIES

1. Reviewer and Contributor, [CMIP6 Output Grid Guidance](#), 2018–2019.
2. Co-PI, NSF EarthCube AGS-1541031: Advancing netCDF-CF for the Geoscience Community, 2015–2019.
3. PI, NASA AIST project “JAWS: Justified AWS-like data through workflow enhancements that ease access and add scientific value”, NNH13ZDA001N, 10/2017–9/2019.
4. Co-Chair, NASA Dataset Interoperability Working Group ([DIWG](#)), 2013–2016. Member, 2013–present.
5. Author and maintainer, netCDF Operators ([NCO](#)), 1995–present.