Eric Keenan

Eric.Keenan@colorado.edu | 206-919-0203 | https://erickeenan.github.io/

Education

Ph.D. University of Colorado Boulder, Expected 2022
Atmospheric and Oceanic Sciences
- Thesis: *Blending high performance computing and detailed snow physics to map Antarctic snow properties at unprecedentedly high resolution.*
- GPA 4.0
- Course work: Statistical Data Analysis, Scientific Communication and Writing

Bachelor of Science Cum Laude University of Washington, 2017
Major: Earth and Space Sciences: Physics
- Minors: Mathematics and Applied Mathematics
- GPA 3.77
- Course work: Scientific Computing, Computational Methods for Data Analysis, Electrodynamics.

Technical Skills

Programing Languages: Python, C++, Shell Scripting (bash, csh), MATLAB, R, Java.

Other Tools: Unix/Linux, Git, GNU Parallel, OpenMP/MPI, Google Cloud Platform, GDAL, Conda, NumPy, SciPy, Pandas, Xarray, Scikit-learn.

Professional Experience

Graduate Research Assistant — May. 2018 – Present
Ice Sheets and Climate Research Group
- My primary responsibility is to quantify ice sheet contribution to sea level rise by improving mathematical model simulations of snow properties. To do so, I develop and deploy numerical models on distributed and parallel systems.
- Publish scientific findings in peer-reviewed journals (6 articles total, 1 first author).

Graduate Instructor — Aug. 2018 – Dec. 2018
Atmospheric and Oceanic Sciences, University of Colorado Boulder
- Instructor for Atmospheric and Oceanic Sciences 1070 “Weather and Atmosphere Laboratory.” Lead lectures, experiments, grading, and office hours for 48 students.

Undergraduate Researcher — Nov. 2014 – Nov. 2017
Civil and Environmental Engineering, University of Washington
- Delivered and published a hydrometerologic dataset from a network of 50 wilderness stream gauges and weather stations I maintained in Yosemite National park from 2015-2017.

Projects and Software Development

Numerical Land Surface Snow Model - SNOWPACK — Jan. 2019 – Present
- Actively contribute to open-source development of SNOWPACK. My contributions include development of a cloud based web application where non-technical users can configure, run, and analyze numerical simulations directly from a web browser.

Global Climate Model Statistical Downscaling — Aug. 2019 - Present
- Created an open source workflow to statistically downscale climate model output such that it can be rapidly digested by numerical land surface snow models.