James Bourbeau

Contact Information

E-mail: jrbourbeau@gmail.com

Webpage: jamesbourbeau.com

Professional Experience

Coiled 2020-Present
Software Engineer
Build products and services to enable scaling computing. Maintain Dask, along with the surrounding ecosystem of Python libraries, and manage open source community relations.

Quansight 2018-2020
Software Engineer
Build and maintain open source projects in the scientific Python ecosystem.

Support Engineer
Collaborate with data scientists and software engineers to scale data analysis workflows on distributed platforms.

Wisconsin IceCube Particle Astrophysics Center 2016-2019
Research Assistant
Apply machine learning techniques to data collected using the IceCube Neutrino Observatory to study the cosmic-ray mass composition.

Education

University of Wisconsin–Madison
Ph.D. in Physics 2019
M.S. in Physics 2017

University of Texas at Arlington
B.S. in Physics 2013

Software

I am an active developer, maintainer, and contributor to several projects in the Python data science ecosystem. My recent efforts have been focused on developing Dask, a library for scalable computing with dynamic task scheduling, and Zarr, a storage format for chunked, compressed, N-dimensional arrays.

More details on my open source contributions are available on GitHub: github.com/jrbourbeau.

Publications

- J. Bourbeau et al., (2018). *PyUnfold: A Python package for iterative unfolding.* Journal of Open Source Software, 3(26), 741, https://doi.org/10.21105/joss.00741.
- M. Winter, J. Bourbeau, M. Meehan et al., *Particle Identification In Camera Image Sensors Using Computer Vision.* Astroparticle Physics, https://doi.org/10.1016/j.astropartphys.2018.08.009.
- J. Bourbeau, P. Desiati, J.C. Diaz Valez, S. Westerhoff et al. (IceCube Collaboration), *Cosmic-Ray Anisotropy with Seven Years of Data from IceCube and IceTop*, Proceedings of the 35th International Cosmic Ray Conference. [proceedings].
- Y. Bai, J. Bourbeau, and T. Lin. *Dark Matter Searches with a Mono-Z' Jet.* JHEP **1506**, 205 (2015). [arXiv:1504.01395].