Aaron Deich

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My driving goal is to use, support, and advocate open & reproducible software practices across disciplines.

- I am the Director of Open Software at the University of Washington's eScience institute, an interdisciplinary program designed to support data-driven discovery across disciplines. At the institute I work with students, researchers, and faculty in a variety of settings.
- I maintain a technical blog, Pythonic Perambulations, to share tutorials and opinions related to statistics, open software, and scientific computing in Python.
- I invest a significant amount of time in creating and developing Python tools for use in data-intensive science, including packages like *Scikit-Learn*, *SciPy*, *AstroPy*, *Altair*, and many others.

Software

Scikit-Learn
2010–Present

I a member of the core team of scikit-learn, a popular package for performing machine learning in Python. I have contributed in many areas, but most notably routines for efficient 2-point (e.g. nearest neighbors) queries, and algorithms based on these such as k-neighbor classification, kernel density estimation, and manifold learning. I have also presented tutorials on the subject on many occasions, including at the PyCon, SciPy, and PyData conferences.

SciPy
2011–Present

I am a maintainer of SciPy, the definitive repository for many scientific computing tools available in Python. My contributions are primarily in the sparse matrix package, including code for efficient solutions of large sparse eigenvalue problems, and for efficient traversal and analysis of large sparse graphs.

Altair
2016-Present

I am co-creator of the Altair project, a declarative statistical visualization library for Python built on the Vega-Lite visualization grammar.

AstroPy
2014–Present

I have contributed several components of the suite of statistics tools for the AstroPy project, a Python package aimed at astronomers. In particular, I wrote the modules for Bayesian Blocks and the Lomb-Scargle Periodogram.

Others

I have created and contributed to many other Python projects, including Matplotlib, IPython, NumPy, Pandas, AstroML, SciDB-Py, Pelican, mpld3, and others. I have also open-sourced much of my research code and teaching materials. More information is available in my GitHub profile.

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