

NUMFOCUS

OPEN CODE = BETTER SCIENCE

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President NumFOCUS Board of Directors

Welcome to NumFOCUS



Making an Impact



- **Powering Scientific Discovery**
 - Event Horizon Telescope first photograph of a black hole (NumPy, SciPy, pandas, Astropy, Jupyter, Matplotlib)
 - LIGO 2017 Nobel Prize in Physics (Jupyter, IPython, Stan, NumPy, Matplotlib)
- **Supporting Technical Innovation**
 - Apple OSX, Microsoft Azure Machine Learning Studio, Intel Distribution for Python (NumPy)
 - Google Colaboratory, Netflix (Jupyter Notebook)
- **Fighting Human Trafficking**
 - DARPA MEMEX program (Katrina Riehl/me as Principal Investigator)
 - Analyzing Deep Web traffic (NumPy, pandas, PyTables, scikit-learn, Statsmodels)
- **Enabling Ethical Algorithms**
 - The Institute for Ethical AI and Machine Learning explainable AI framework (pandas, NumPy, Jupyter, scikit-learn, Matplotlib)

Why Support Open Source?



- **Research & Development Costs**

- \$7.3bil - The amount in R&D costs which open source software is estimated to have saved the telecom sector alone as of the end of 2020
- By being active the community, you stay at the forefront of emerging technologies and can engage core developers to influence roadmap and features

- **Recruit & Retain Top Talent**

- Multiple talent recruitment channels
- Increased team engagement
- Over 95% of software developers, analysts, and other IT professionals agree that open source software has become strategically important to the success of their businesses

- **Better for business**

- Harvard Business School demonstrates that paying employees to contribute to open source software boosts a company's productivity from using the software as much as 100%
- McKinsey & Company found that among the 440 companies they studied, they observed 60% higher shareholder returns and 20% higher operating margins
- Better brand perception, customer satisfaction, and talent management

Why NumFOCUS?

To meet the critical needs of
open source projects

- Funding
- Stability
- Independence
- Logistical Support



NumFOCUS supports and sustains the software foundations of science

A stable, independent, and
professional home for open
source projects.

- Fiscal & Legal Services
- Sustainability
- Community

Fiscal & Legal Services.

What happens when your project receives corporate funding?



- **LEGAL SERVICES**

- Licensing
- Trademark Registration & Ownership
- Contracts & Agreements

- **FINANCIAL SERVICES**

- Accounts Payable & Receivable
- Grant Administration
- Contractor Agreements
- Taxes & Reporting

- **OPERATIONAL SERVICES**

- Technical Infrastructure
- Conference & Event Planning
- Consulting on a variety of administrative requests

Sustainability.

How does your project survive?



- **Small Development Grants**

- NumFOCUS awards small development grants to help our projects improve usability, grow their communities, and speed up the time to major releases. Eligibility is limited to our fiscally sponsored and affiliated projects, and calls for proposals are run 3 times per year.
- In 2022, NumFOCUS awarded ~\$220,000 for small development grants.

- **Summit**

- 2 days of intensive work to focus on sustainability challenges and solutions
- Past workshops topics have included governance, roadmaps, diversity & inclusion

Community.

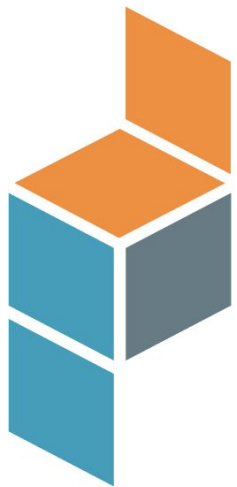
Why is increasing public engagement important?
How can your project interact more with the community?

Educational Programs



- Conferences
- Workshops
- Sprints & Hackathons
- Google Summer of Code
- Videos
- Meetups
- Digital Communities

Check Us Out: <https://www.youtube.com/@PyDataTV>



PyData

An educational
program of

NUMFOCUS
OPEN CODE = BETTER SCIENCE

PyData's Impact

16

Conferences**

180+

Meetups

66

Countries



\$425,000

**Proceeds benefiting NumFOCUS
Projects and Initiatives**



NumFOCUS Behind the Scenes

- Staff
- Board of Directors
- Advisory Council
- Diversity & Inclusion in Scientific Computing (DISC) Committee
- Affiliated Project Committee
- Small Development Grant (SDG) Committee



Getting Involved in NumFOCUS

- Donate
- Advocate
- Volunteer
- Contribute Code

<https://numfocus.org/support>





numfocus.org