

Community-first open source: An action plan!

PyCon US 2023 - Maintainer Summit





Hi!
I'm Pavithra :)

DEVELOPER ADVOCATE, QUANSIGHT



Co-presenter: Tania Allard

CO-DIRECTOR, QUANSIGHT LABS

The background features several abstract shapes: a large orange semi-circle in the top-left, a purple semi-circle in the top-center, a yellow rounded rectangle in the top-right, a yellow rounded rectangle in the middle-right, a yellow rounded rectangle in the bottom-right, and a purple semi-circle in the bottom-left.

**What is
community-first
open source?**

Company-backed

&

Community-driven

Community-driven:

Driven, developed, and governed
by the *community*.

Community comes first,
and for-profit entities are a part
of the broader community.

Community?

Enthusiasts

Users

Advocates



Contributors

**Maintainers &
Sustainers**

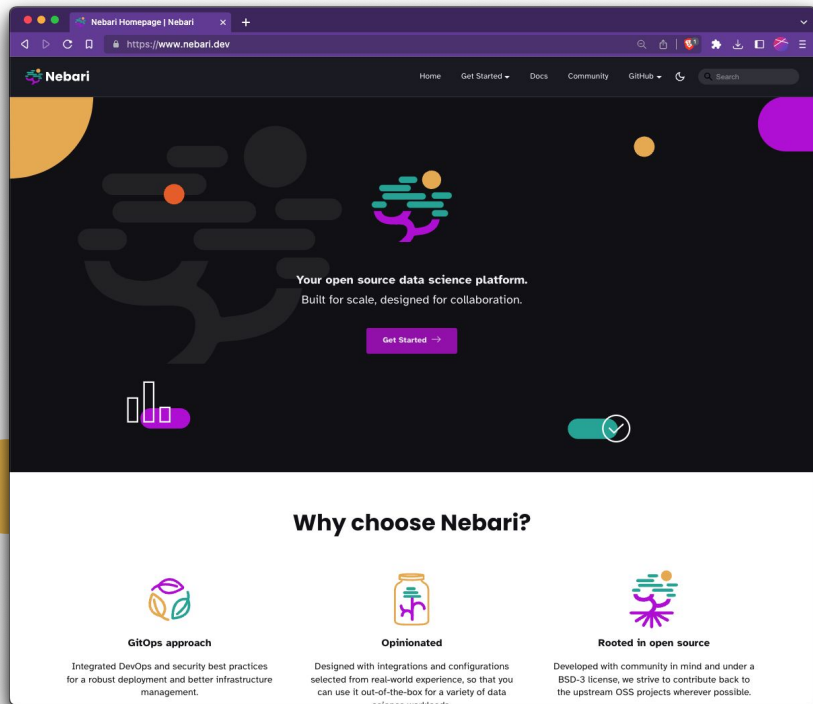


Long-term sustainability

Open+documented decisions

Improvements that benefit everyone

Investment in onboarding new contributors



**We're moving Nebari
to a community-first
governance**



Step 1


Guiding principles

User personas & journeys

Personas


Gallery Table +

Filter Sort Q ... New ▾




Noor
16-25
Student Python Programmer


end user




Aila
25-35
Data scientist
Head of Data Science
end user




Blake
25-35
Software Engineer/ ML Engineer
Head of Software Engineering
super user




Enzo
30-40
Staff Machine learning engineer at a startup
Head of Software Engineering




Jacob
30-40
Staff Machine learning engineer
Head of Software Engineering




Sam
30-40
Research Data Scientist
Head of Data Science
super user




Taylor
30-45
Sr. Dev Ops Engineer
Head of Software Engineering
admin



Robin
45-55
Head of Data Science
CTO
end user



Skyler
35-45
Staff Machine learning engineer
Head of Software Engineering
end user




Jordan
45-60
CEO
-
customer

Story

User story format: As a **user persona**, I want **goal** so that **some reason**.

- As a research data scientist I want to use ML to measure and optimise the costs, performance, efficiency and reliability of our company's infrastructure to deliver the best experience to our customers.
- As a research data scientist I want to implement and test out new approaches both on toy test tasks as well as on actual application scenarios.



Tools they need to do their job

- Python
- Machine Learning frameworks
- SQL
- Dask
- VSCode, Jupyter notebooks

Pain points or biggest challenges

- Cannot scale the compute resources without having to go through infrastructure approval
- Not easy way to track experiments, data lineage, and workflow artefacts
- Do not understand git well enough

Core needs

- Collaboration with engineering, product and the rest of the DS team
- Ability to track experiments, models, data, accuracy, metrics reliably
- Ability to access scalable compute on-demand

Core values



Accessibility
and inclusion



Flexibility: Use
OSS tools



Explicit
governance



Contribute
back upstream








Security best
practices



Vendor
agnostic dev

Vision board

 Vision	All-in-one development and experimentation platform for Data Science teams.	What is your purpose for creating the product?
	Open source platform for data science teams (1-100) to work efficiently and collaboratively. Reducing the deployment and integration friction.	Which positive change should it bring about?

 Target group	 Needs	 Product	 Business Community goals
<p>Users:</p> <ul style="list-style-type: none">- Data Scientists and ML Engineers- MLOps experts or practitioners- Software developers <p>Maintenance and deployment:</p> <ul style="list-style-type: none">- infra and DevOps teams <p>Customers:</p> <p>Data science teams between 1-100:</p> <ul style="list-style-type: none">- research- industry (startups)	<p>Data Science teams:</p> <ol style="list-style-type: none">1. Flexible data science environment2. Open source tools and multiple integrations (workflow engines, data sources, orchestration, data stores, feature store, version control, visualization and dashboards)3. High-quality and comprehensive documentation4. Best practices: security, reproducibility, version control, collaboration <p>DevOps/infra:</p> <ol style="list-style-type: none">1. Reproducible deployments2. Security-first features3. Avoid vendor lock-in4. Transparency regarding configuration, permissions, upgrades, dependencies and supply chain matters	<ol style="list-style-type: none">1. Just works experience2. Open source (built on and itself)3. Build on the right to replicate for customer4. Vendor agnostic → multi-cloud, GitHub, GitLab, infrastructure and configuration as a code	<p>Make this a true community-driven open source project</p> <ol style="list-style-type: none">1. Complementary to [REDACTED]2. Drive engagement and trust within the open source community3. Contribute to upstream projects and ecosystem4. Have solid governance and sustainability objectives
<p>Which market or market segment does this product address?</p> <p>Who are the target customers and users?</p>	<p>What problem does the product solve?</p> <p>Which benefit does it provide?</p>	<p>What product is it?</p> <p>What makes it stand out?</p> <p>Is it feasible to develop the product?</p>	<p>How is the product going to benefit the company?</p> <p>What are the business goals?</p>



Step 2

Project management



1

Licensing

2

**Code of
conduct**

3

**Repository
management**

4

**Communicat-
ion channels**

5

Governance

6

**Messaging
& branding**



1

Licensing

Consider licenses for core, supporting, upstream, and downstream projects



2

Code of conduct

Policy

Enforcement strategy

Contributor Covenant

GitHub's Open Source Guide

SciPy's CoC

Turing Way's CoC (derived from Carpentries)

Mozilla's consequence ladder



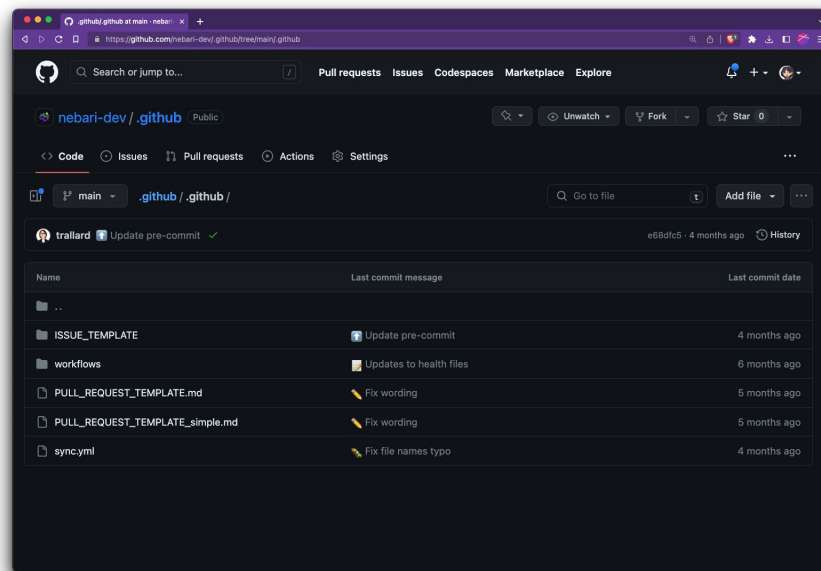
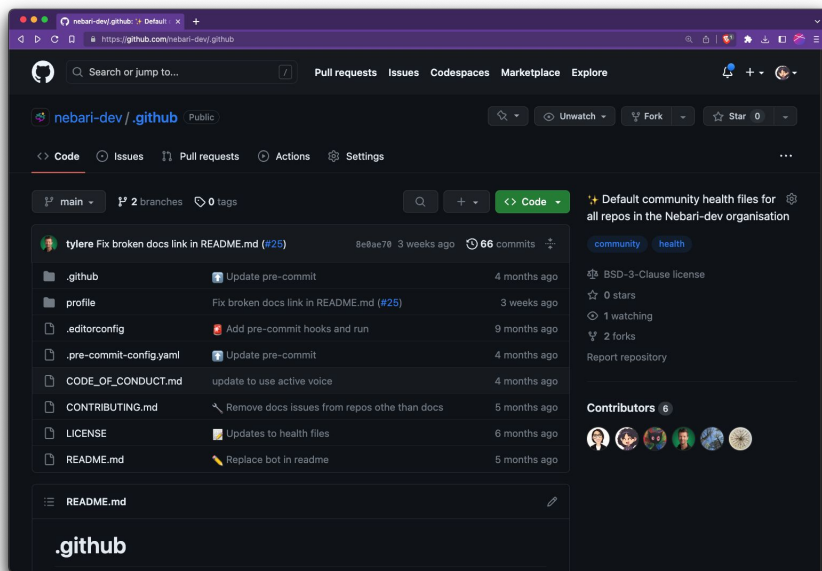
3

Repository management

Organization, repository, team structure

Issues / PRs – labels & templates

Nebari's repository management





4

Communication channels

Support channels

Development chat

Meetings & notes



5

Governance

A process for making design, development, and management decisions

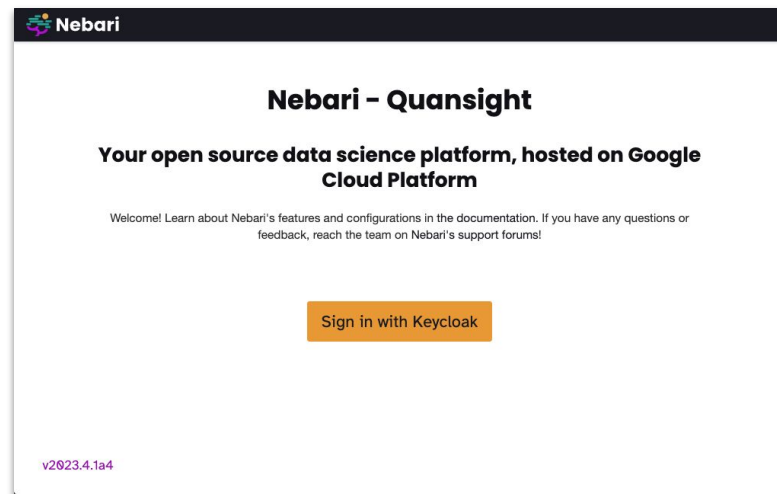
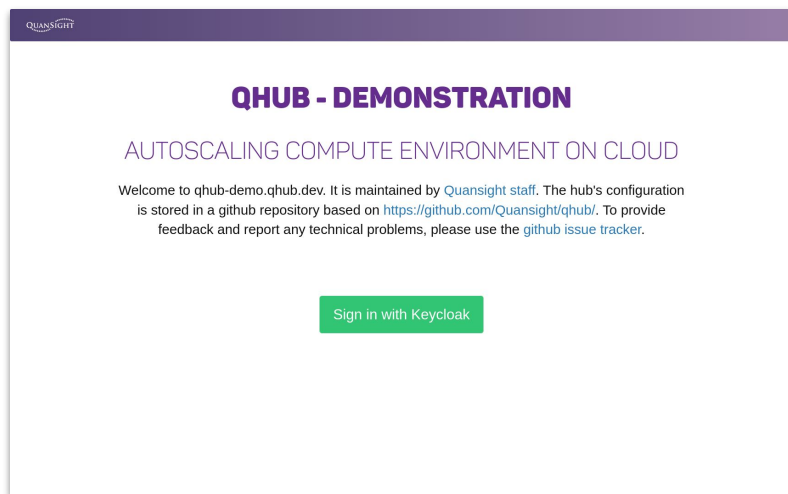


6

Messaging and branding

Alignment with new values & vision

Nebari's messaging and branding





Step 3

Enabling Contributions



1

**Contributor
guidelines &
pathways**

2

**Maintainers
guidelines
& pathways**

3

**Architecture
information**

4

Roadmap



1

Contributor guidelines and paths

Guidelines for code and low/no-code contributions

Issues / PRs best practices, reply templates, etc.



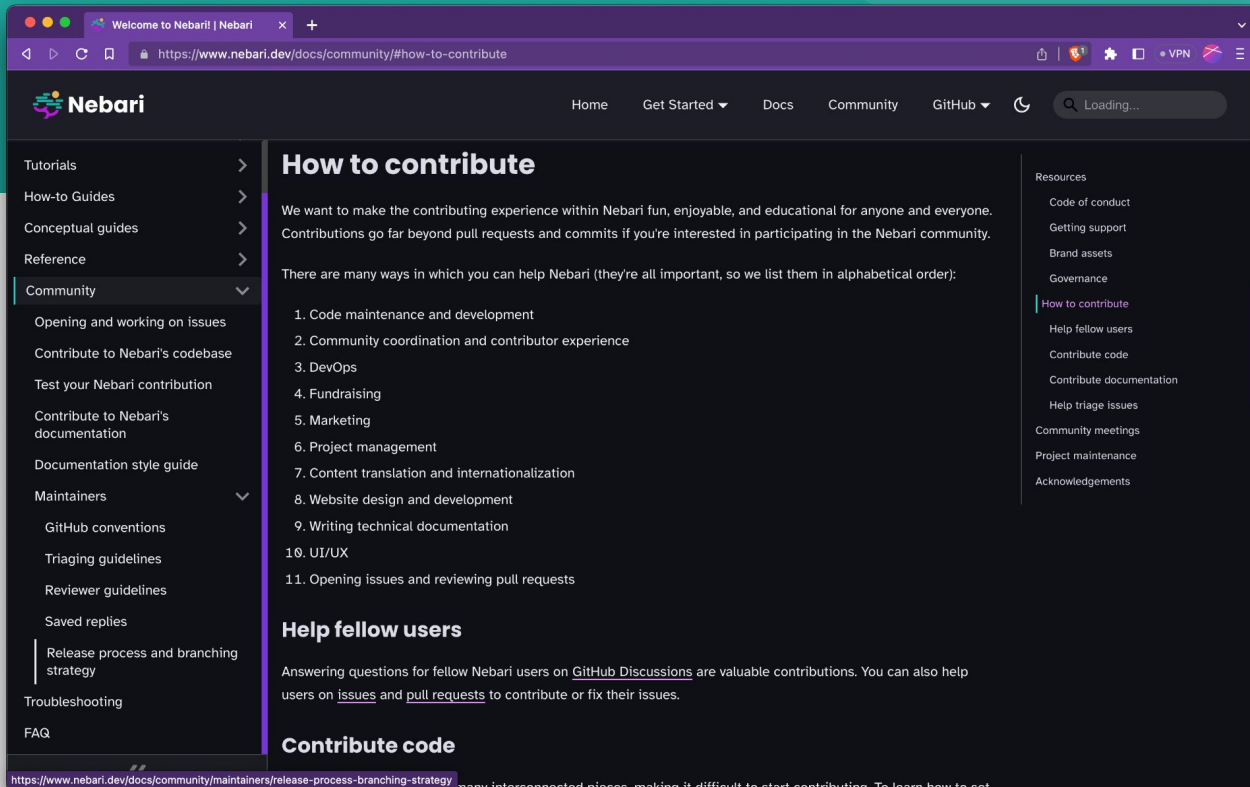
2

Maintainer guidelines and paths

Code review guidelines

Testing & debugging workflows

Contributor and maintainer docs



The screenshot shows a web browser window with the URL <https://www.nebari.dev/docs/community/#how-to-contribute>. The page title is "Welcome to Nebari! | Nebari". The navigation bar includes links for Home, Get Started, Docs, Community, and GitHub, along with a search bar. The left sidebar contains a list of navigation items: Tutorials, How-to Guides, Conceptual guides, Reference, Community (selected), Opening and working on issues, Contribute to Nebari's codebase, Test your Nebari contribution, Contribute to Nebari's documentation, Documentation style guide, Maintainers (expanded), GitHub conventions, Triaging guidelines, Reviewer guidelines, Saved replies, Release process and branching strategy, Troubleshooting, and FAQ. The main content area is titled "How to contribute" and contains the following text: "We want to make the contributing experience within Nebari fun, enjoyable, and educational for anyone and everyone. Contributions go far beyond pull requests and commits if you're interested in participating in the Nebari community. There are many ways in which you can help Nebari (they're all important, so we list them in alphabetical order):"

1. Code maintenance and development
2. Community coordination and contributor experience
3. DevOps
4. Fundraising
5. Marketing
6. Project management
7. Content translation and internationalization
8. Website design and development
9. Writing technical documentation
10. UI/UX
11. Opening issues and reviewing pull requests

The right sidebar contains a list of resources: Code of conduct, Getting support, Brand assets, Governance, How to contribute (selected), Help fellow users, Contribute code, Contribute documentation, Help triage issues, Community meetings, Project maintenance, and Acknowledgements.

Below the list, the section "Help fellow users" is titled, followed by the text: "Answering questions for fellow Nebari users on [GitHub Discussions](#) are valuable contributions. You can also help users on [issues](#) and [pull requests](#) to contribute or fix their issues."

The section "Contribute code" is titled, followed by the text: "many interconnected pieces, making it difficult to start contributing. To learn how to set



3

Architecture information

Underlying architecture diagrams

Release mechanism

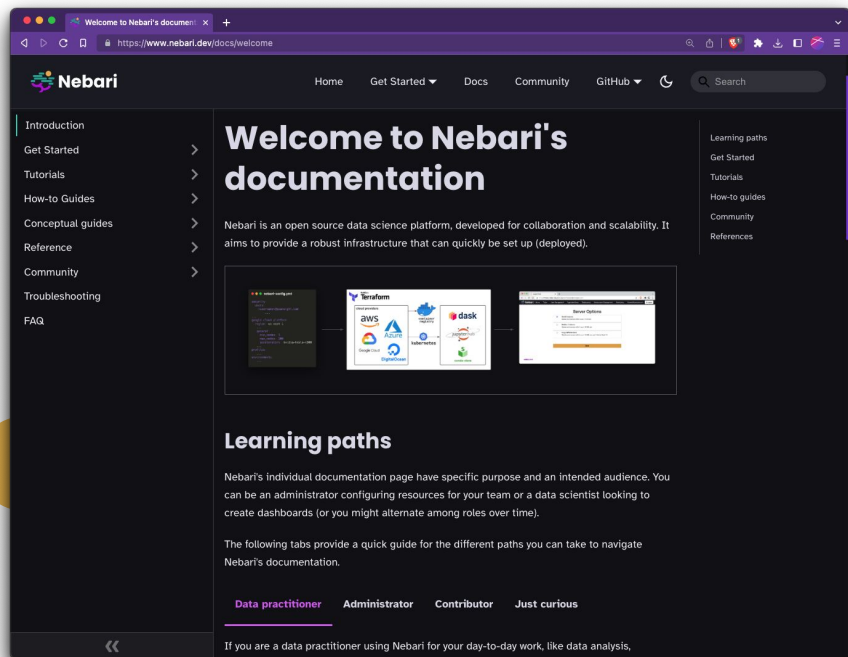


4

Roadmap

Milestones

Priorities



Address *all* community members

> Docs style guide

> Framework (Diátaxis)



**These will evolve as your
community grows :)**



Thank you