Expanding Facilitation Impacts

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CHTC / UW – Madison
HTC 25 – June 2, 2025

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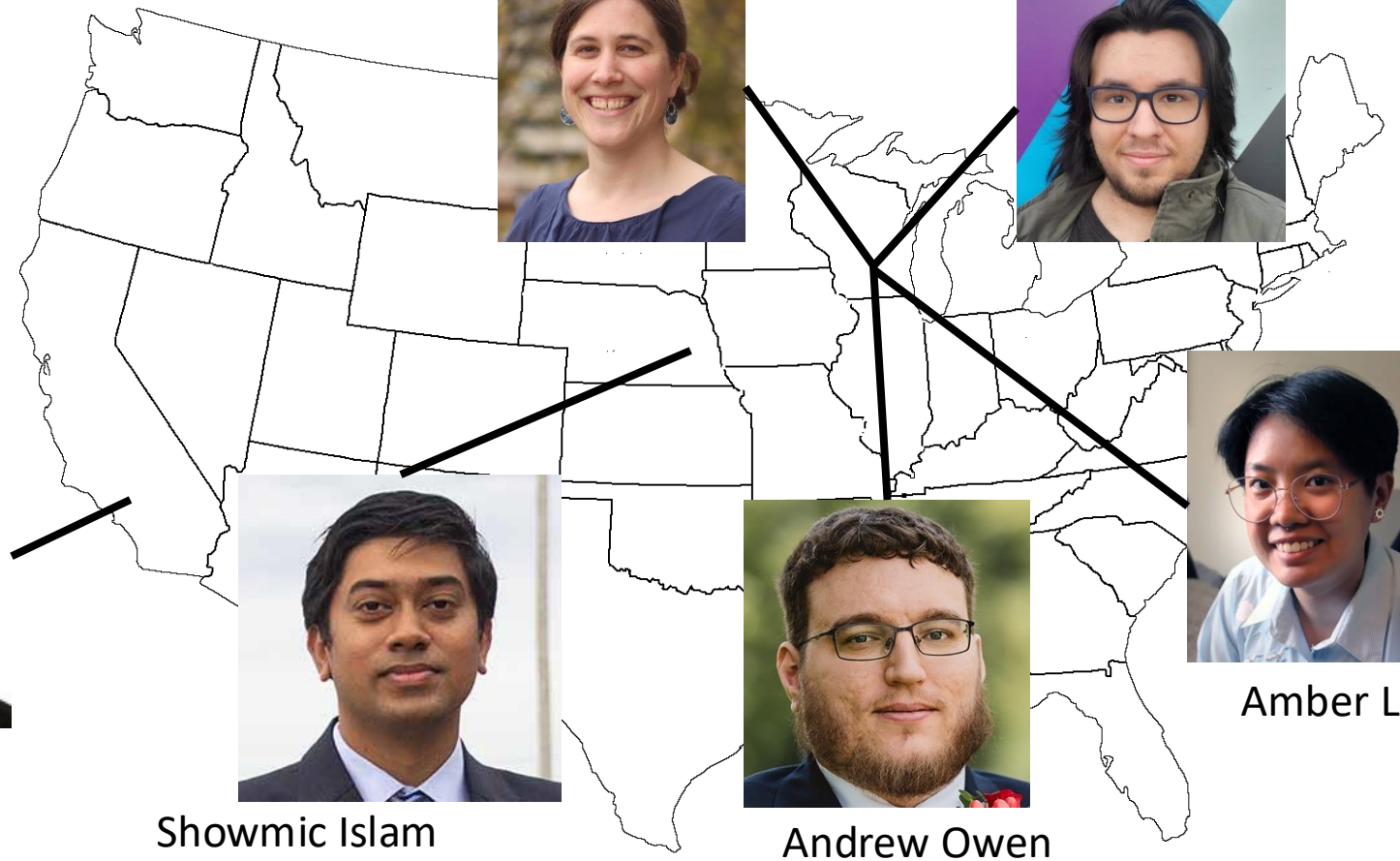
The team!



Christina Koch

Daniel Morales

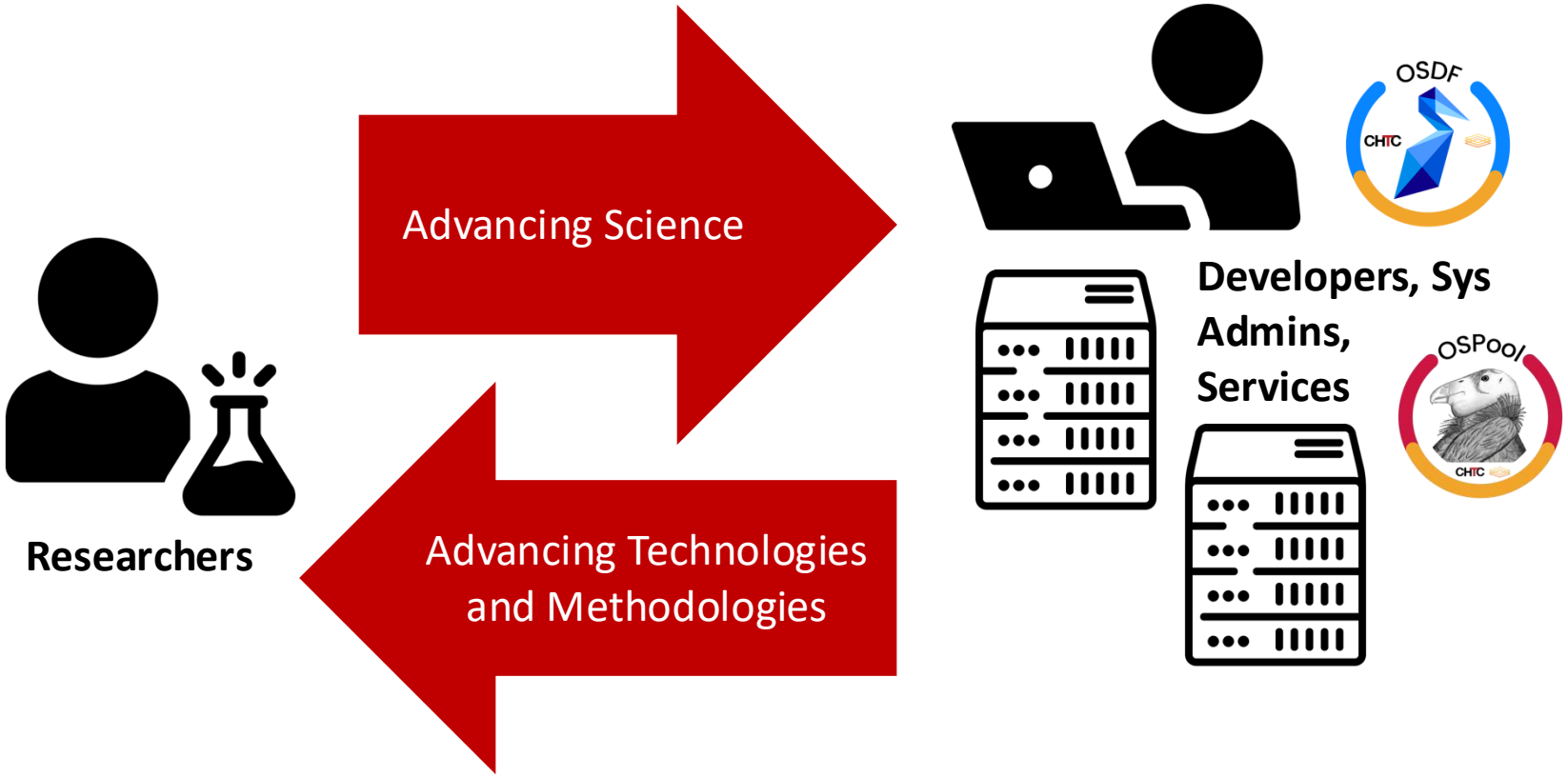
Mats Rynge

Amber Lim

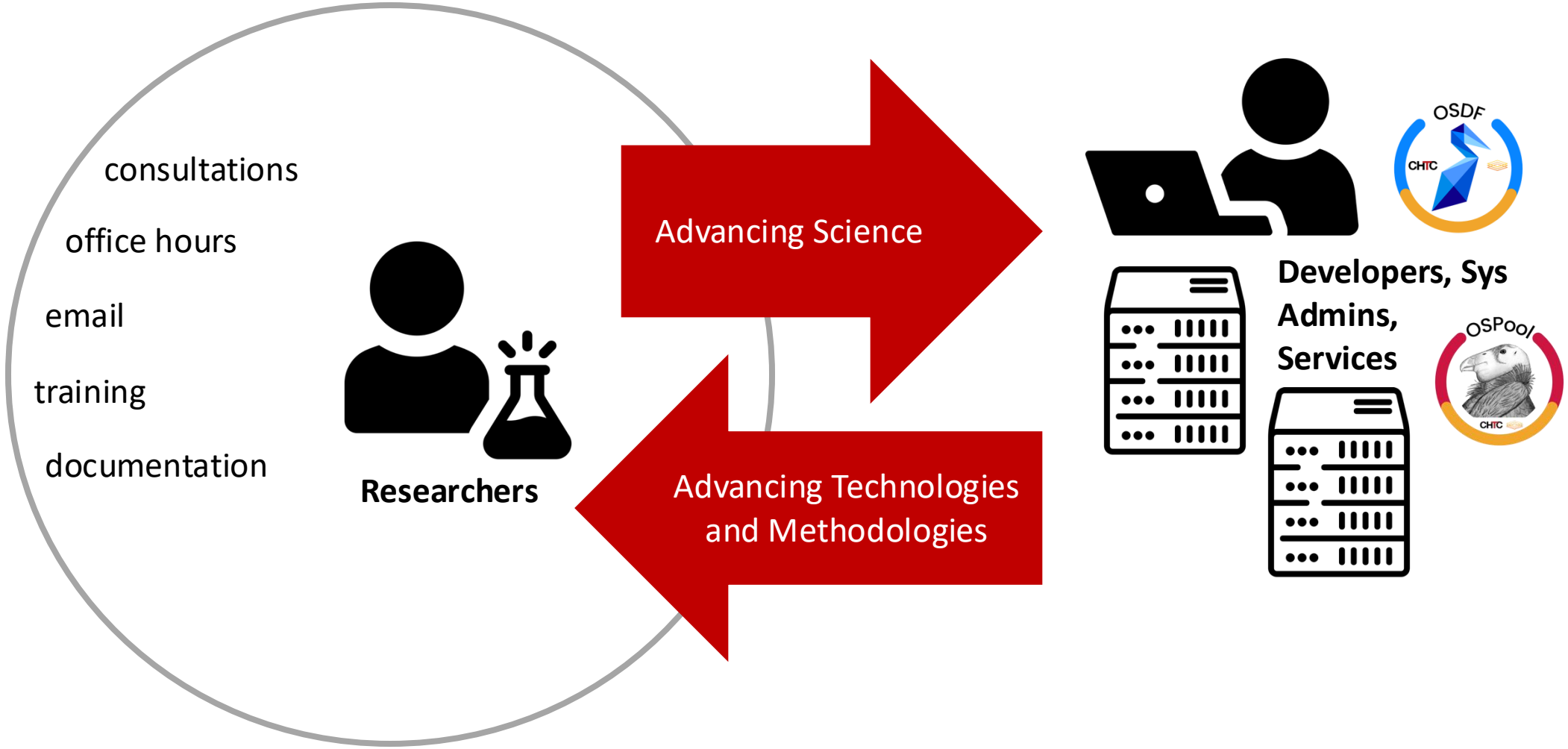
Showmic Islam

Andrew Owen

What we do


Advancing Science
Advancing Technologies and Methodologies
Researchers
Developers, Sys Admins, Services
OSDF
CHTC
OSPool
CHTC

What we do


consultations
office hours
email
training
documentation
Researchers
Advancing Science
Advancing Technologies and Methodologies
Developers, Sys Admins, Services
OSDF
CHTC
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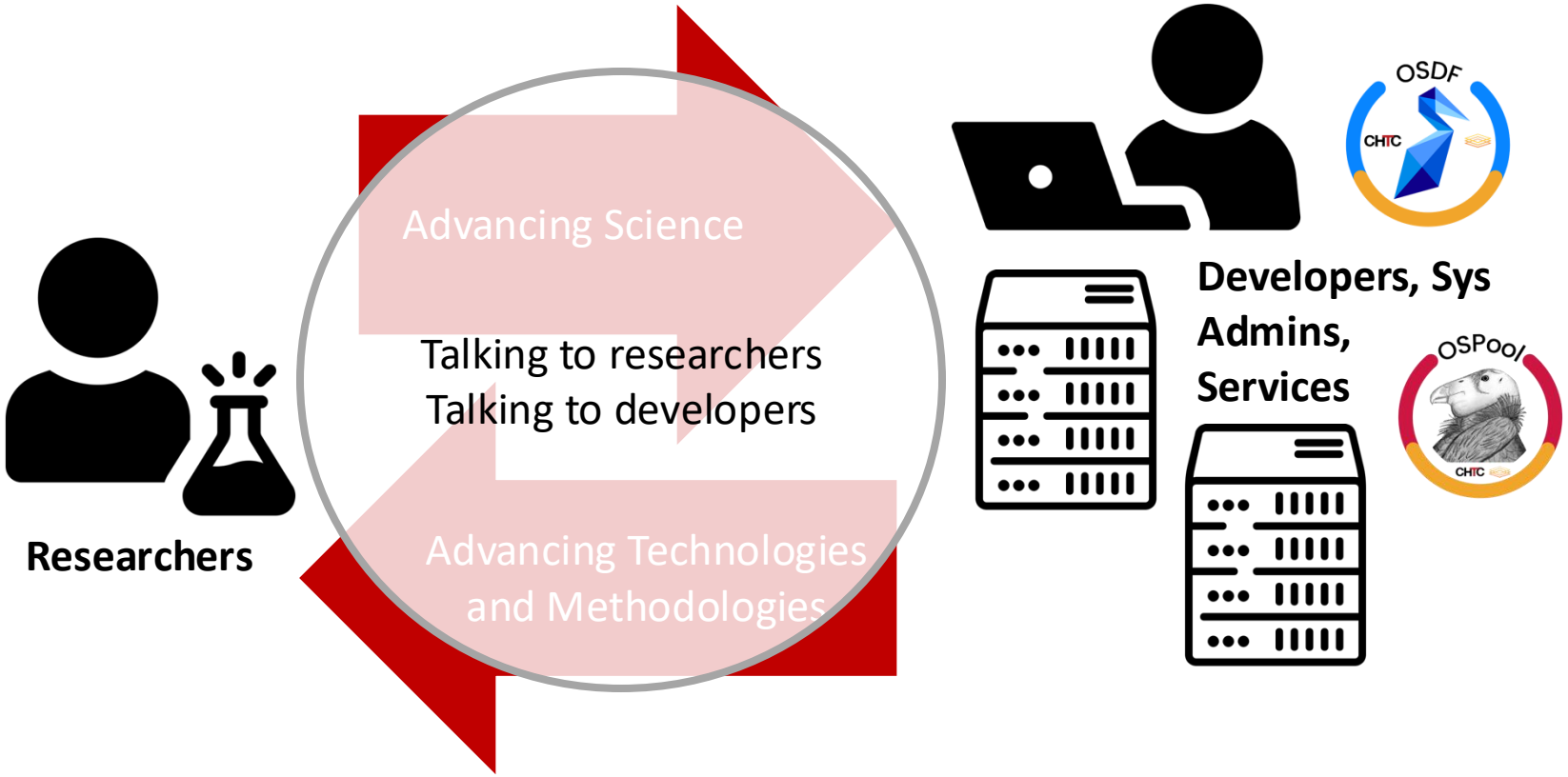
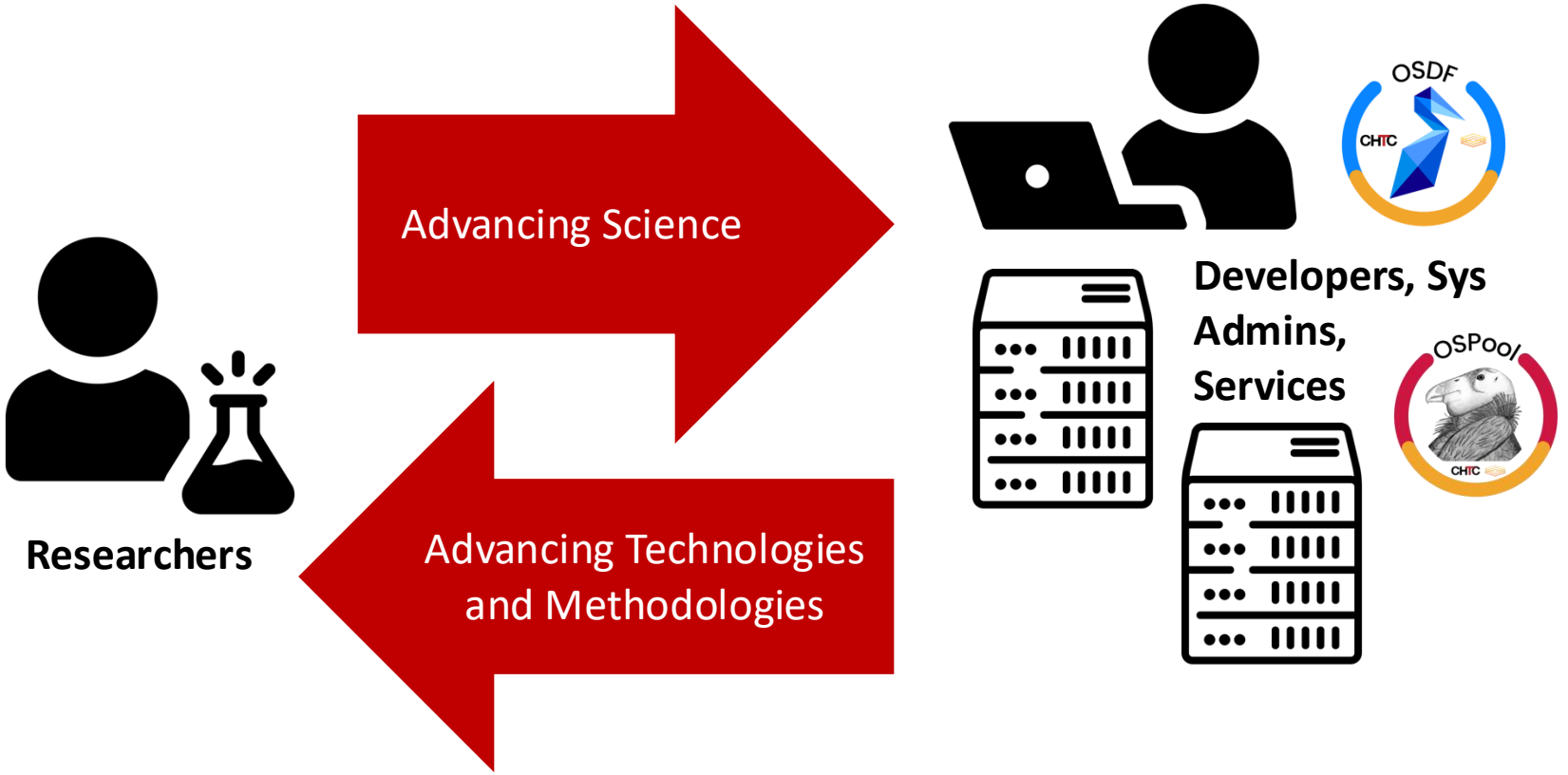
CHTC

What we do

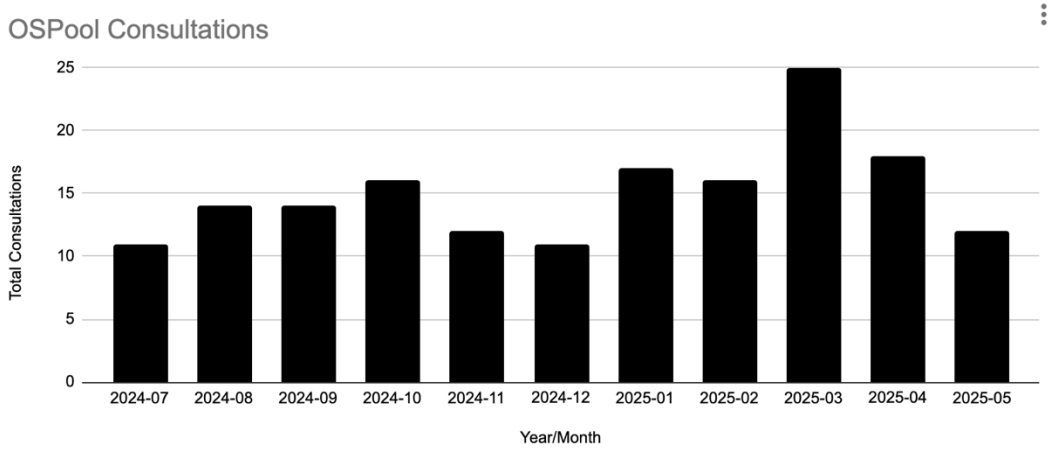

Researchers
Advancing Science
Talking to researchers
Talking to developers
Advancing Technologies and Methodologies
OSDF
CHTC
Developers, Sys Admins, Services
OSPool
CHTC

What we do



(Will revisit this flow with a broader campus-focused lens on Wednesday!)

Some numbers…



99
Total office hours visits

May 2025
Busiest month (18 visits)

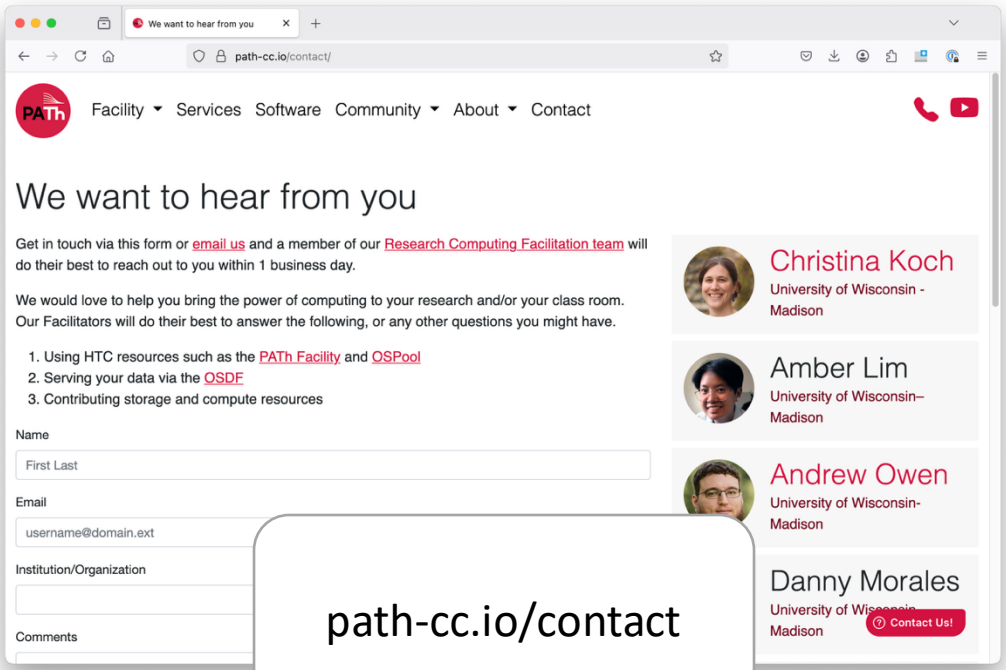
Most popular training topics (20+ attendees)

GPUs and Machine Learning in the OSPool

Adapting Workflows for High Throughput Bioinformatics

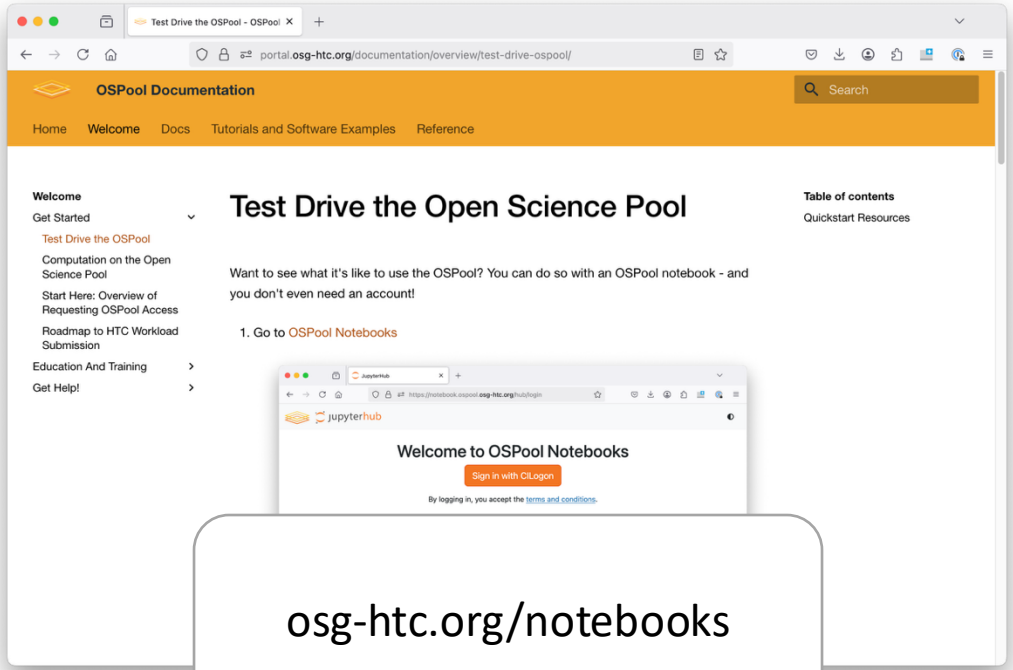
New ways to connect

Talk to Us



path-cc.io/contact

Test Drive the OSPool



osg-htc.org/notebooks

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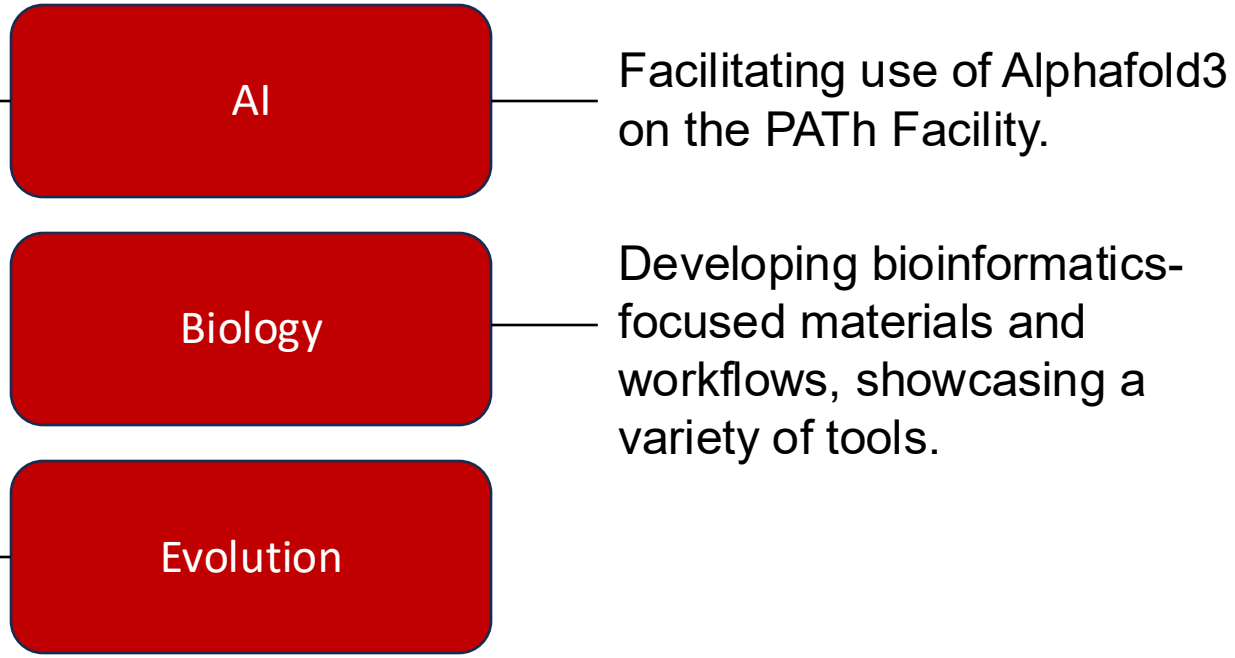
Focusing on research domains

PATh is now a NAIRR resource provider. https://path-cc.io/nairr

(Learn more about our own work on Thurs. morning.)

Working with a researcher running evolutionary simulations, with plans to reach out to that community.

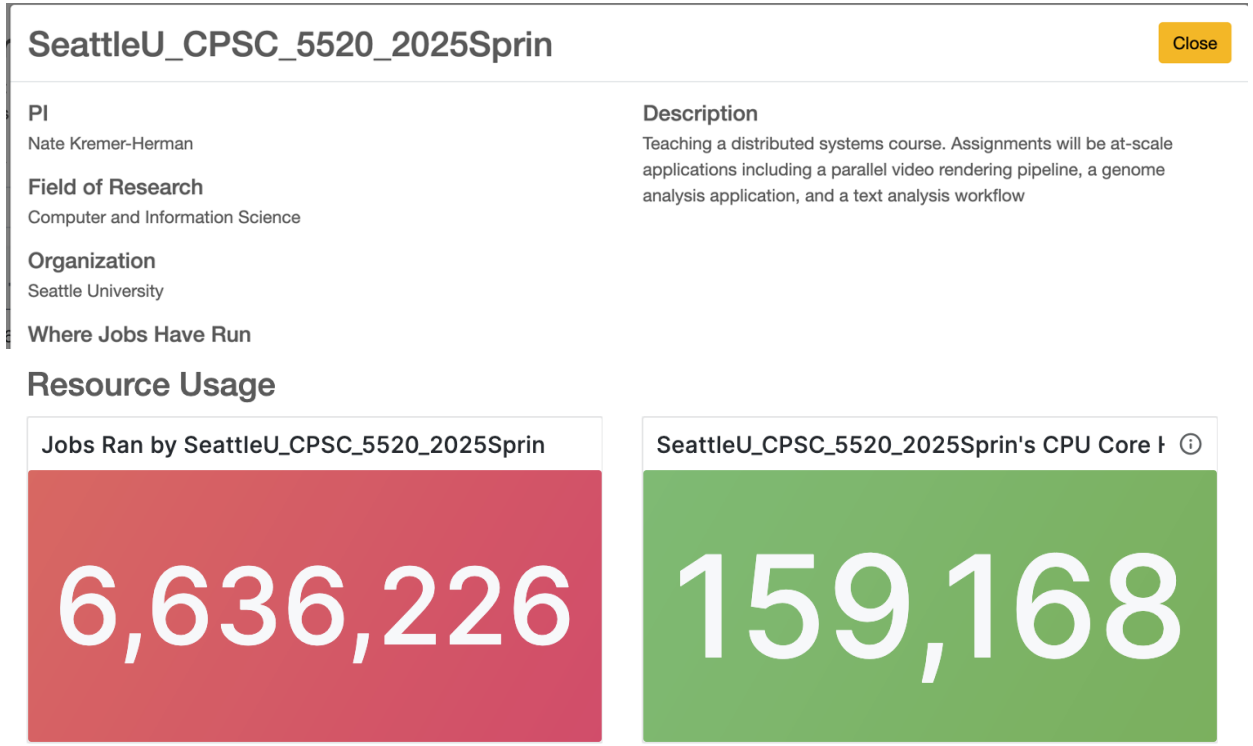


Facilitating use of Alphafold3 on the PATh Facility.

Developing bioinformatics-focused materials and workflows, showcasing a variety of tools.

(More bio/evolution talks this morning and afternoon!)

Teaching on the OSPool



The OSPool can be used as a platform for courses and training.

For educators

- Accessible, open capacity
- Authentic tasks

For us

- A broader variety of users

https://portal.osg-htc.org/documentation/support_and_training/training/ospool_for_education/

Building a data community

Previously…

- Experience in integrating campus computing into the OSPool
- OSDF access tied to OSPool account

New questions this year

- How do we integrate campus storage into the OSDF?
- How do we provide access to objects *not* in the context of an OSPool Access Point?

Other talks about this

- Frank (up next)
- Tim and Christina (Wednesday morning)

Facilitating a feedback cycle

OSPool Advisory Group

- Met through 2024
  - feedback on new HTCSS command line interface
  - suggestions for OSG School incorporated over last year and this year (preparation for School, follow up survey, 1-1 meetings)
- On hiatus this year; want to bring back for 2025-06.

Regular UX Meetings (HTCSS + Pelican)

- HTCSS
  - Improvements to error messages and other outputs
  - New attributes or submit options
- Pelican
  - Documentation development
- Both
  - CLI improvements, bug reports

Testing technologies

Case study: ARM processors in the OSPool

- HTCSS → multi-architecture support
- Facilitation → write up a preliminary guide
- Campus contributor → provide ARM CPUs
- Facilitation → identify beta testers → provide additional support for testing
- Everybody → monitor the results

I've run some tests, and out of 90 cases, on average, one of the ARM64 nodes takes 0.92 times as long to accomplish the same work as the X86 nodes for poorly optimized Python.
At best, they seem to be about 3x as fast, and at worst, they seem to be about 1.6 times slower.
...
I'll run some heavier workloads in the next couple of weeks and let you know if I notice anything further.

What's next?

- More work with OSDF / campus storage contributions (OSStore)
- Networking within communities of interest (specific science domains, instructors/teachers)
- User feedback
  - Bring back OSPool advisory group
  - OSG School + general user surveys

Questions?

Contact us! https://path-cc.io/contact/

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Acknowledgements

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