



Technology Infrastructure  
for Data Exploration

**CSU CIO Council TIDE Update**  
**April 19, 2024**

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<https://tide.sdsu.edu/>



- Project Update
- 5NRP Conference
- CENIC: Award and CENIC-AIR
- Next Steps
- Quick Links



- National Science Foundation, Campus Cyberinfrastructure (CC\*): Regional Computing (Area 5), [Award # 2346701](#)
- Two year award: 1/1/2024 - 12/31/2025
- Total award: \$991,749
  - Server Hardware: \$739,921
  - Graduate student assistants at four campuses: San Diego, San Bernardino, Humboldt, and Stanislaus.
  - Personnel costs at San Diego Supercomputer Center
  - Yearly travel for project meeting



U.S. National  
Science  
Foundation



- TIDE hardware integrated into Nautilus (NRP) on April 1st
- Grad student hired at SDSU
- Initial science drivers identified by four campuses and active engagement to enable their use of TIDE
- Website and documentation work continues
- CSU-wide JupyterHub deployed and available for campuses without their own instance(s)
- CO developed ServiceNow request intake process
  - CSU users can submit TIDE Support Requests from the TIDE website
  - TIDE Support Team will facilitate access to JupyterHub or assist with more complex workflows



- CSU-wide JupyterHub deployed
- “Easy button” access to TIDE hardware and NRP
- Commonly used containers available for use
- Integrated with CILogon for campus authentication
  - Missing CSU Bakersfield, Cal State LA, and CSU Monterey Bay from CILogon IDP list
- TIDE Support Request required to be granted access



TensorFlow



PyTorch



kubernetes





- CSU was well represented, with attendees from San Diego, San Bernardino, Humboldt, and Northridge
- Presentations from several CSUs
  - San Diego - [VERNE](#) Instructional Usage, [TIDE and RONS](#)
  - San Bernardino - [JupyterHub for Instruction](#)
  - Northridge - [Dr. Bingbing Li](#) on use of NRP for research/lab
- Keynote by Katie Antypas, director of the Office of Advanced Cyberinfrastructure (OAC) at NSF, as well as leading the [National AI Research Resource \(NAIRR\)](#) initiative
  - Lunch breakout with Katie and Kevin Thompson from NSF
  - Education was a big topic and enabling our future workforce





## 2024 Innovations in Networking Award for Equitable Access to Cyberinfrastructure

MAR 19, 2024



### **CENIC Honors San Diego State University and the San Diego Supercomputer Center for their Roles in Developing the Technology Infrastructure for Data Exploration (TIDE) Project**

- Project team accepted the award at the CENIC conference in Monterey, CA on March 26, 2024
- Many members of the team also participated on a panel discussion titled: Bootstrapping Cyberinfrastructure within the CSU

<https://cenic.org/news/cenic-honors-san-diego-state-university-and-the-san-diego-supercomputer-center-for-their-roles-in-developing-the-technology-infrastructure-for-data-exploration-tide-project>

<https://tide.sdsu.edu/>





## 2024 Innovations in Networking Award for Research Applications

FEB 29, 2024



### **CENIC Recognizes CSU San Bernardino's High Performance Computing Program for Improving CSU Access to National Research Platform Resources**

<https://cenic.org/news/cenic-recognizes-csu-san-bernardinos-high-performance-computing-program-for-improving-csu-access-to-national-research-platform-resources>



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National Science Foundation, Campus  
Cyberinfrastructure: Regional  
Computing, Award 2346701

<https://tide.sdsu.edu/>





- CENIC has been working with UCSD and the CSU to create an ecosystem of resources to support AI work called the CENIC AI Resource (CENIC-AIR)
- Think of CENIC as the California resources within the NRP (Tom and Larry prior presentation)
- Initial launch focus on CENIC AIR is new flexible science networking opportunities for campuses

<https://cenic.org/initiatives/cenic-air>





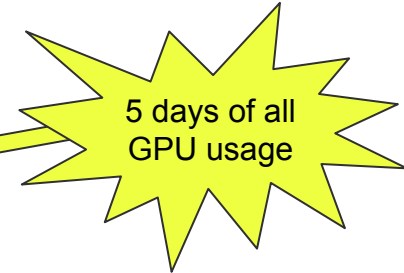
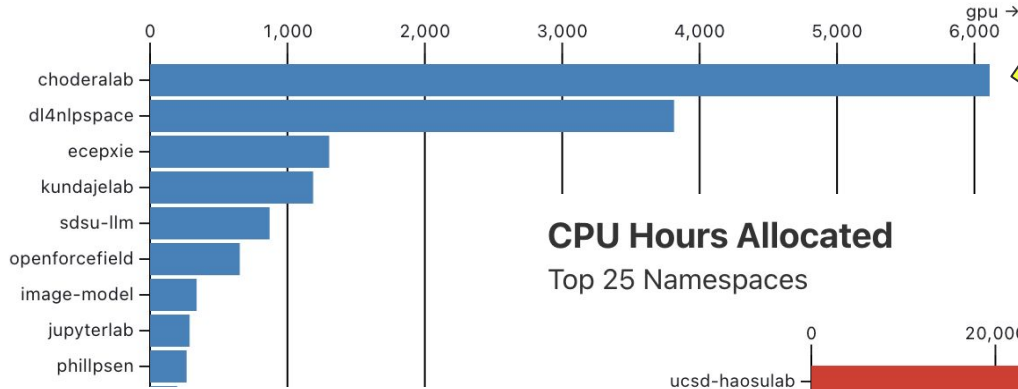
- Upcoming trainings and webinars
  - July - Intro to TIDE webinar
  - August - Hands-on use of TIDE, focusing on AI/ML
  - September - CalStateTech conference
- Fall office hours
- Continuing to build out documentation
- How can we get help communicating training and webinars?





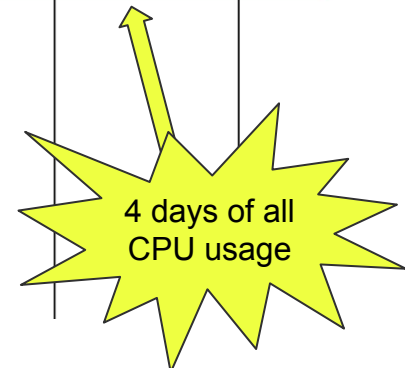
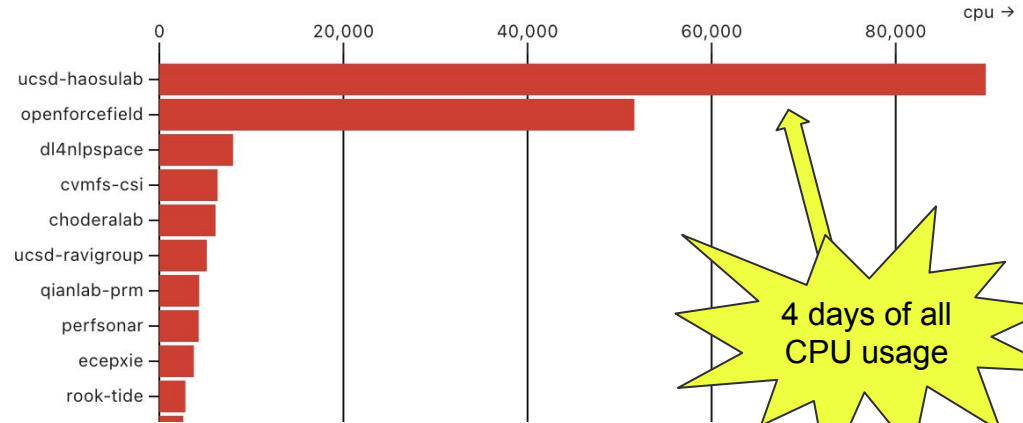
## GPU Hours Allocated

Top 25 Namespaces



## CPU Hours Allocated

Top 25 Namespaces



TIDE Hardware Usage  
4/1/24 - 4/18/24

<https://tide.sdsu.edu/>

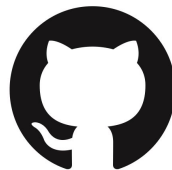


## Quick Links



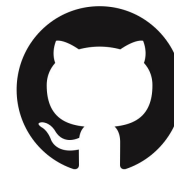
**TIDE Website**

<https://tide.sdsu.edu/>



**TIDE GitHub Org**

<https://github.com/csu-tide>



**TIDE GitHub Documentation**

<https://csu-tide.github.io/>



**Using TIDE (Request Support)**

<https://tide.sdsu.edu/usingtide/>



**TIDE JupyterHub**

<https://csu-tide-jupyterhub.nrp-nautilus.io/>



**TIDE YouTube**

<https://www.youtube.com/@csutide>

<https://tide.sdsu.edu/>





Thank You



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National Science Foundation, Campus  
Cyberinfrastructure: Regional  
Computing, Award 2346701

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