Title:

Nebari: Easily deploy and maintain an open source data science platform on the cloud of your choice

Abstract:

There is a critical need in organizations for a shared data science platform that is flexible, accessible, and scalable. Typically, the choices are using a vendor supplied platform that doesn't quite fit, or spending significant time and engineering effort rolling out a custom solution. In this tutorial, we will walk you through the installation and usage of Nebari, a new open source project that provides an all-in-one development and experimentation platform for teams to work efficiently and collaboratively. Nebari can be installed in as little as 30 mins on your cloud of choice (currently AWS, GCP, Azure, DigitalOcean) and can also be installed on-prem. In this tutorial we will walk you through the installation process and core features of Nebari.

Description

Nebari (nebari.dev) is an opinionated JupyterHub distribution that integrates many open source libraries into a coherent platform. The components that form Nebari can be rearranged and customized to support many different enterprise use cases. The deployment, integration, and maintenance burden is minimized by using the Infrastructure as Code (IaC) management approach. Additionally, Nebari integrates conda-store, another open-source library, that allows organizations to manage data science environments across teams and from research to production. Some of the components included in a Nebari deployment are: VSCode, Dask, Prefect, ClearML, Conda, Grafana, Prometheus, Argo Workflows and Dashboard sharing. Nebari uses Keycloak, a powerful and established open-source project, as its identity and access management solution. This allows administrators to apply the principle of least-access to many of the core services listed above.

Ultimately Nebari takes a DevOps for non-DevOps approach. For smaller teams and organizations this means that they can deploy and maintain a fully featured data science platform without needing an internal devops team. For larger organizations, Nebari provides a customizable blueprint of how to integrate JupyterHub with the many other open source tools that are typically needed.

In this tutorial, we will walk attendees through several examples that demonstrate the various features of Nebari; attendees are encouraged to log into demo.nebari.dev and follow along. In the second half, we will demo how easy it is to get started deploying your own cluster.Finally, we'll wrap up with a chance for the attendees to ask questions and continue to explore and play with the platform. To attend the tutorial, no knowledge of cloud technologies is required. Basic comfort using the command line is needed.

Time breakdown (subject to change)

- Introduction to Nebari (10 mins)
- Walkthrough of Nebari Features (40 mins)
- Installation (20 mins)
- Q&A (20 mins)