CYVERSE®

Transforming Science through Data-Driven Discovery

cacao

Cloud Automation & Continuous Analysis Orchestration

Connect your Colab

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Colab Gone Rogue
Hooking Up to the Cloud of Your Choice!

Today's webinar

- What is Google Colab?
- What is CACAO?
- Why CACAO + Colab?

Demos

- Example Colab
- Deep Learning with Detecto
- Animal tracking with DeepCut

What is Google Colab?

Colab is a hosted Jupyter Notebook service that requires no setup to use and provides   free of charge access to computing resources, including GPUs and TPUs.

What is Google Colab?

Colab is a hosted Jupyter Notebook service that requires no setup to use and provides ~~nearly~~ free of charge access to computing resources, including GPUs and TPUs.

Why Google Colab?

No setup required

Easy to use and easy to generate a badge (https://openincolab.com/)

Sharing and collaboration*

Free access*...

Google Colab: Is it really free? Up to a point...

Your notebook is limited to certain resources and processing may be interrupted

Storage quota

12-hour runtime for free tier
24 hours for "hosted runtime"
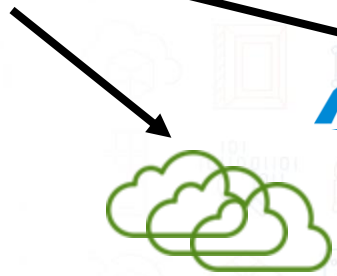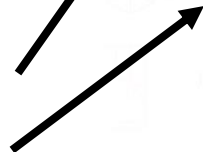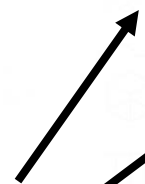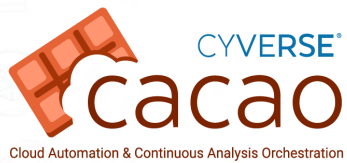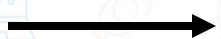Or pay for a dedicated gcloud vm

Some features are disabled unless you're premium

Cloud
Automation
Continuous
Analysis
Orchestration

Researcher
Educator
RSP*

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Jetstream2

CSP

Azure   aws

Edge Clouds

* RSP is a Research Software Professional, including RSEs, RS Devops, etc.

THE UNIVERSITY OF ARIZONA   CYVERSE®   NSF Grant Nos. DBI-0735191, DBI-1265383, and DBI-1743442   RESEARCH, INNOVATION & IMPACT Data Science Institute   Jetstream2
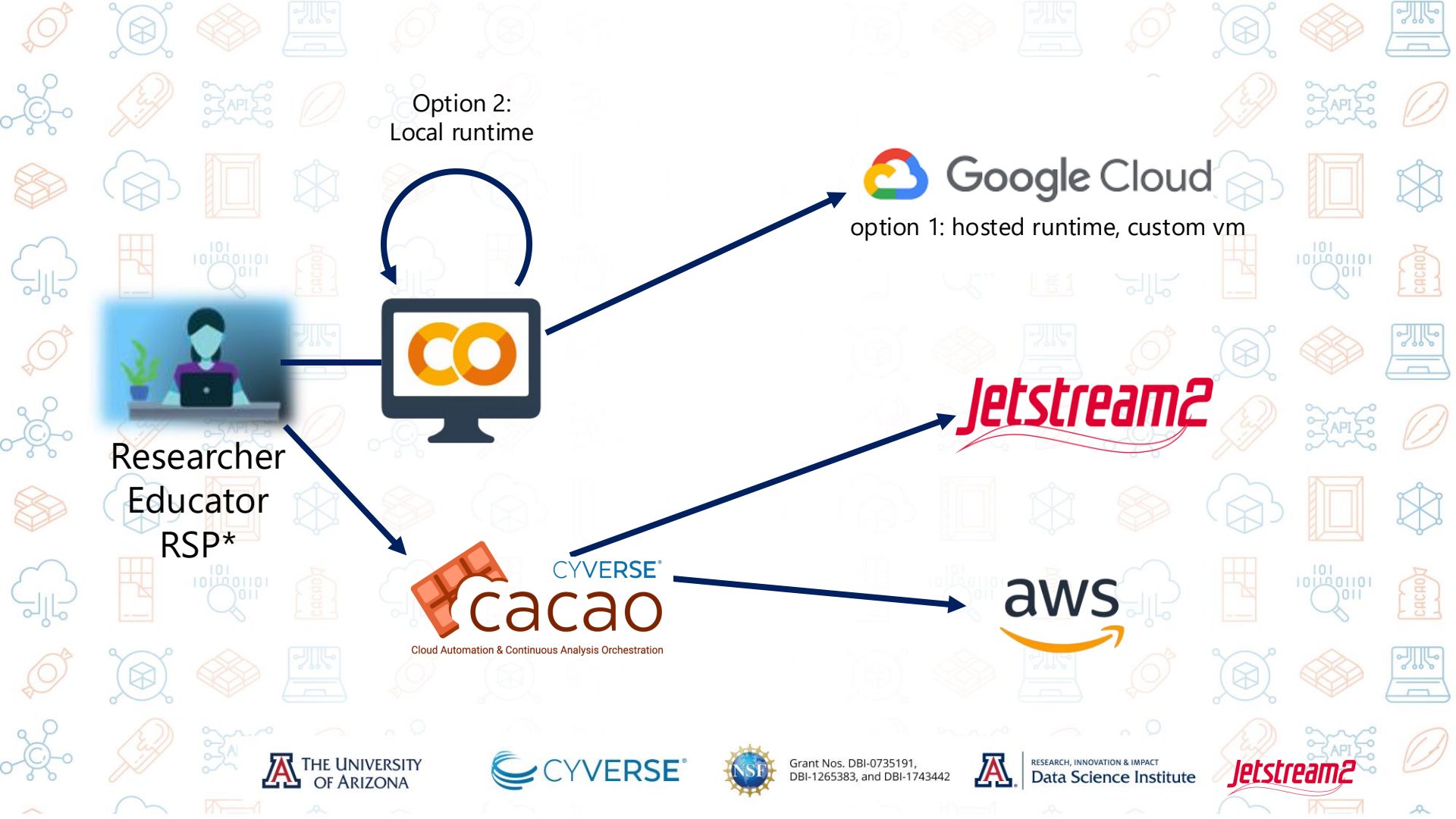
Option 2:
Local runtime

Google Cloud

option 1: hosted runtime, custom vm

Jetstream2

Researcher
Educator
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aws

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Why the Colab + CACAO option?

Move beyond Colab's free tier quotas and restrictions
- No time restrictions
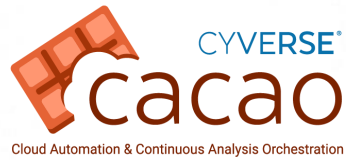- No preemption
- No storage quotas

Tap into existing resources
- Jetstream2/NAIRR Pilot Classroom
- AWS

Potentially tap into other CACAO-provisioned infrastructure
e.g., using Kubernetes or slurm cluster (magic castle)

DEMOS

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Thank you!

For more information, feel free to reach out to me:

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Jetstream2 Office Hours Support

When: Tuesdays, 2-3PM ET (over zoom)
More info: https://jetstream-cloud.org/documentation-support/index.html