

# CTA developers seminar - gitlab & gitlabCI

Dominik Neise

24.02.2021

## Before we begin - Flipped classroom

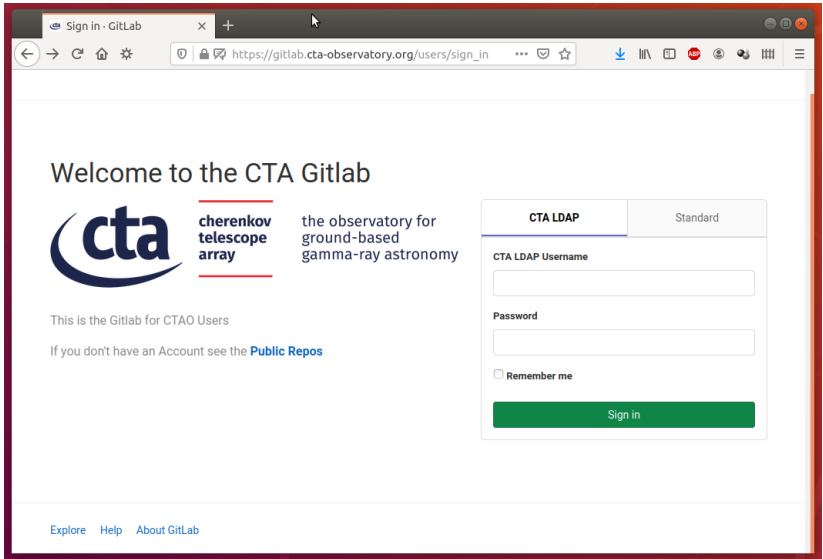
- ▶ people watch videos in their own good time
- ▶ people meet for (rather short) online meetings to discuss questions

# Flipped Git

*An Introduction to Git and GitHub by Brian Yu*

Any questions?

# Introduction to GitLab



The screenshot shows a web browser window with the address bar displaying "https://gitlab.cta-observatory.org/users/sign\_in". The page title is "Sign in · GitLab". The main heading is "Welcome to the CTA Gitlab". Below this is the CTA logo, which consists of the letters "cta" in a bold, sans-serif font, with a blue arc above it. To the right of the logo, the text "cherenkov telescope array" is written in a smaller, bold, sans-serif font, and "the observatory for ground-based gamma-ray astronomy" is written in a regular, sans-serif font. Below the logo and text, it says "This is the Gitlab for CTAO Users" and "If you don't have an Account see the [Public Repos](#)". On the right side of the page, there is a sign-in form with two tabs: "CTA LDAP" (selected) and "Standard". The form has fields for "CTA LDAP Username" and "Password", a "Remember me" checkbox, and a green "Sign in" button. At the bottom of the page, there are links for "Explore", "Help", and "About GitLab".

Sign in · GitLab

https://gitlab.cta-observatory.org/users/sign\_in

## Welcome to the CTA Gitlab

**cta** **cherenkov telescope array** the observatory for ground-based gamma-ray astronomy

This is the Gitlab for CTAO Users

If you don't have an Account see the [Public Repos](#)

CTA LDAP

Standard

CTA LDAP Username

Password

☐ Remember me

Sign in

[Explore](#) [Help](#) [About GitLab](#)

Figure 1: gitlab sign in page

# How to get an account?


- ▶ getting an account should be **super easy**
- ▶ <https://cta.cta-observatory.org/web-registry>
- ▶ ... ask your boss for help
- ▶ use your LDAP account.

# How to create a repository

- ▶ set the visibility to universal.
- ▶ add a README.md
- ▶ protect your main branch (Yes, even when you work alone.):  
Settings -> Repository -> Protected Branches
- ▶ add a LICENSE (BSD-3, see next slide)

# CTA Licensing Policy

<https://forge.in2p3.fr/dmsf/files/8629/view>

	<b>CTAO Software Licensing Policy</b>	
	Document	CTA-STD-OSO-000000-0002, Issue 1, Rev. h, 10.6.2020
	Author: I. Oya, CTAO	

## CTA Software Licensing Policy

Prepared by	 Igor Oya Vallejo <small>Digitally signed by Igor Oya Vallejo Date: 2020.08.26 08:55:29 +02'00'</small>	Date
Approved by	 S. Schlenstedt <small>Stefan Schlenstedt cn=Stefan Schlenstedt, o=CTAO, email=stefan.schlenstedt@cta- observatory.org, c=DE 2020.08.26 09:24:49 +02'00'</small>	Date
Released by	W. Wild	Date

## Interesting places to see:

- ▶ Issues
- ▶ Analytics -> CI/CD
- ▶ Analytics -> Repo
- ▶ Settings -> Repo -> Protected Branches (we saw already)
- ▶ Settings -> CI/CD
- ▶ Download as compressed files



## Misc

- ▶ How to setup SSH - keys
- ▶ How to annotate comments in reviews with the code lines they refer to
- ▶ Do not push build artifacts (but maybe auto-generated code)
- ▶ Users can download, not using git (this affects git-LFS, e.g. ACS)

# gitlabCI

## Why again?

(what Max said in the last meeting)

- ▶ Run build / unit tests / code quality checks automatically
- ▶ Should run for each push event / opened pull request
- ▶ All architectures / versions your software supports should be tested
- ▶ Can provide detailed reporting / automated pull request reviews
- ▶ Require passing CI system for pull requests

CI file editor:

<https://gitlab.cta-observatory.org/cta-computing/acada/adh/-/ci/editor>

# How to get code context for reviews

- ▶ click on diff and then at the side

Pasting images into issues and basically any text-box just works.

# Container registry

[https://gitlab.cta-observatory.org/cta-computing/acada/adh/container\\_registry](https://gitlab.cta-observatory.org/cta-computing/acada/adh/container_registry)

# analytics

<https://gitlab.cta-observatory.org/cta-computing/acada/adh/-/graphs/dev/charts>

wiki

<https://gitlab.cta-observatory.org/cta-computing/acada/adh/-/wikis/home>

Language is markdown.



# Snippets

<https://gitlab.cta-observatory.org/cta-computing/acada/adh/-/snippets/new>

- ▶ maybe a nice place for examples
- ▶ not subject to CI tests, so can be full of bugs.

# Visibility

- ▶ public: everybody can read. (We want this!)
- ▶ internal: (only visible to logged in users) deprecated since July 2019
- ▶ private: only visible to project members.

# MergeRequests

# Integrations

- ▶ Jenkins

# Webhooks

# GitlabCI

.gitlabCI.yml

# Your own runner

- ▶ install <https://docs.gitlab.com/runner/install/#repositories>
- ▶ register <https://docs.gitlab.com/runner/register/#linux>



# Auto DevOps

Only in Premium

[https://docs.gitlab.com/ee/ci/merge\\_request\\_pipelines/pipelines\\_for\\_merge\\_requests.html](https://docs.gitlab.com/ee/ci/merge_request_pipelines/pipelines_for_merge_requests.html)