

A central entry point for training material

Kilian Lieret^{1,2}

for the IRIS-HEP/HSF Training Group

¹Princeton University

²IRIS-HEP



Current Training Center

Served us well, but becoming crowded

Basics

The UNIX Shell A guide through the basics of the file systems and the shell. Start learning now! Contribute!	Version controlling with git Track code changes, undo mistakes, collaborate. This module is a must. Start learning now! Contribute!	Programming with python Get started with an incredibly popular programming language. Start learning now! Contribute!
Contribute!	Contribute!	Matplotlib for HEP Make science prettier with beautiful plots! Status: Beta testing Start learning now! Contribute!

Software Development and Deployment

Version controlling with git Track code changes, undo mistakes, collaborate. This module is a must. Start learning now! Contribute!	CI/CD (gitlab) Continuous integration and deployment with gitlab. Start learning now! Watch the videos! Contribute!	CI/CD (github) Continuous integration and deployment with github actions. Start learning now! Watch the videos! Contribute!
Docker Introduction to the docker container image system. Start learning now! Watch the videos! Contribute!	Singularity Introduction to containerization with Singularity/Apptainer. Status: Early development Start learning now! Contribute!	Unit testing Unit testing in python. Status: Beta testing Start learning now! Contribute!

- Lists 25 modules
- ~500 visitors/month



“Central Entry Point”

Various Filters → Scales!
 Inspiration: learn.astropy.org

The mockup features a top navigation bar with links for HSP, Working Group, Activities, Meetings, Communication, Projects & Support, and About. Below this is a header for 'Training Center for High Energy Physics' with a subtitle: 'A one-stop platform to access all the resources related to software training for High Energy Physics'.

The main content area is titled 'Training Center v2.0' and includes a search bar. A sidebar on the left contains a 'Filters' section with the following categories:

- Types:** Tutorial, Documentation
- Level:** Beginner, Advanced
- Curriculum:** ALTAS, HEP tools, Machine Learning Tools
- Packages:** numpy, pandas, scipy
- Status:** Ready, Beta, In development

The main content area displays a grid of course cards, each with a search icon and a title.

Mockup by Aniket Rana, (anumbott @ github)
 Inspired by learn.astropy.org

- Pitched as **Google Summer of Code project** ([proposal](#))
- Ultimately didn't get funded
- Had started selecting candidates & proposals (lots of interest, O(30) applicants)
- As part of this, got **several working prototypes** that were completed in the 24-48h qualification tasks
 - <https://github.com/Aniumbott/demo-training-center>
 - **[private]** <https://github.com/BimsaraBodaragama/gsoc-training-center-2023>
 - <https://github.com/developingright/Training-Center-Task>
 - **[private]** <https://github.com/emanuele-em/training-center>
 - **[private]** <https://github.com/Hetarth02/gsoc2023-cern-qualification-task>
- Some of the contributors might still be interested to collaborate on this

- The topic came up in the recent pyHEP.dev workshop ([discussion notes](#)) with two more “flavors”:
 - An “**analysis gallery**” to give examples of how to **combine** the different tools of Scikit-HEP and **solve specific use cases**
 - This idea has been around for quite some time (see [this old issue](#))
 - Loosely inspired by [the matplotlib gallery](#)
 - Similar perhaps to [ROOT tutorials](#)
 - This might be most closely related to original idea from learn.astropy.org/
 - A “**snippets archive**”: A place to store and permalink small pieces of code and explanation

Can we combine these?

Training modules Curricula Analysis Gallery Snippets

Same thing, only one different filter

For v1 will be only link to github repo, but could be extended to compact listing

Training modules Curricula Analysis Gallery Snippets

 Search

v2: Several static lists made from the training modules

Programming language

<input type="checkbox"/>	Python	15
<input type="checkbox"/>	C++	2

v2: Search metadata
v4: Search fulltext

Today

Proposal: Fix scope and goals

Fixed metadata: Reach agreement on metadata

Mock up: Can modify figma template

Starting point: Look through existing solutions/frameworks

Start implementation