

Software Basics Training

Software + HEP Software Fundamentals

Sep 28 - Oct 1, 2022

Instructors:

- Devasena Inupakutika
- Zongru (Doris) Shao
- Enric Tejedor
- Jonas Rembser
- Axel Naumann
- Elliott Kauffman

Mentors:

- Guillermo Fidalgo
- Aman Goel
- Alexander Moreno
- ...

Local organising committee:

- Sudhir Malik
- Michel Villanueva
- Wouter Deconinck
- Kilian Lieret



THE
CARPENTRIES



**If you aren't recording this on Zoom,
start the recording ...
(just a reminder)**

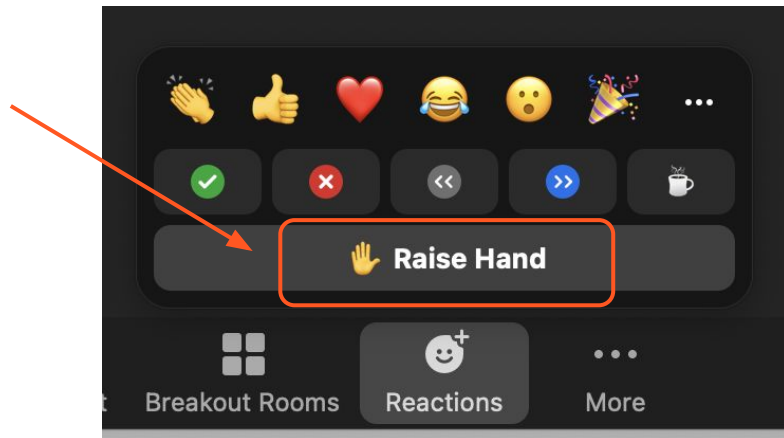
Everyone is Welcome

- You are physicists working in international collaborations. All of you should know this page:
 - [The CERN code of conduct](#)
- Built on a set of core CERN values →
- Taken together, provide the basis for respect: respect for others, respect for the organization and respect for its mission.
- We encourage a culture of openness where all contributors feel free to engage in the discussion.



We are here to help!

- Please “raise your hand” (in reactions at the bottom of your Zoom client) if you have questions.
- You can also ask in the Zoom chat or Slack.



***There is no such thing
as a “stupid question”!***

You should have done this already...

[0] Fill out the pre-training surveys! - It will take 10 minutes.

Links on [Indico](#) (login required!):

HEP Pre-Workshop
Survey



This one.

Carpentries Pre-
Workshop Survey
(External)



And this
one.

[1] Join the Slack channel: [invite](#)

If you have troubles to join, let us know now.



Devasena Inupakutika

*Performance Engineer, Samsung
Semiconductor*

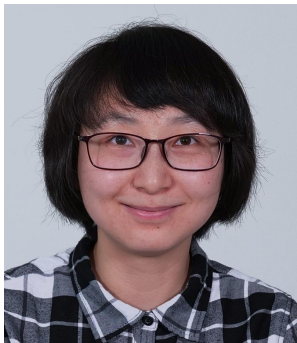
My research: *Datacenter
Technology, Performance
Engineering, AI Workloads*

My expertise is: Systems performance
analysis, AI models

**A software and computing problem I'm
grappling with:** Impact of AI workloads on Solid
State drives performance

I've got my eyes on: New methodologies for
storage-intensive AI

I want to know more about: Everything
Python, Data Analysis and Command-line tools
for automation



Zongru
(Doris)
Shao

Postdoc, CASUS/HZDR, machine learning.

My research: *air quality time series forecasting, natural language processing, text mining (mental health detection, twitter depression, fake news detection), gene analysis, emotion analysis, computer vision, etc.*

My expertise is: machine learning, deep learning, AI applications with sensor data, text, image, video, and audio. A bit HPC.

A software and computing problem I'm grappling with: a lot of python coding.

I've got my eyes on: parallel computing and programming efficiency.

I want to know more about: feedbacks, improvements, etc.



THE
CARPENTRIES



Enric
Tejedor
Saavedra

Software engineer, CERN

My research: *programming models
for physics analysis*

My expertise is: parallel and distributed
computing, HPC

**A software and computing problem I'm
grappling with:** Pythonic interfaces for data
analysis

I've got my eyes on: new backends for
distributed analysis

I want to know more about: feedback about
ROOT and its interfaces





Elliott Kauffman

*Recently graduated from Duke
University
IRIS-HEP Fellow*

My research: *vertex reconstruction
using machine learning*

My expertise is: machine learning

**A software and computing problem I'm
grappling with:** increasing efficiency of
vertexing algorithms

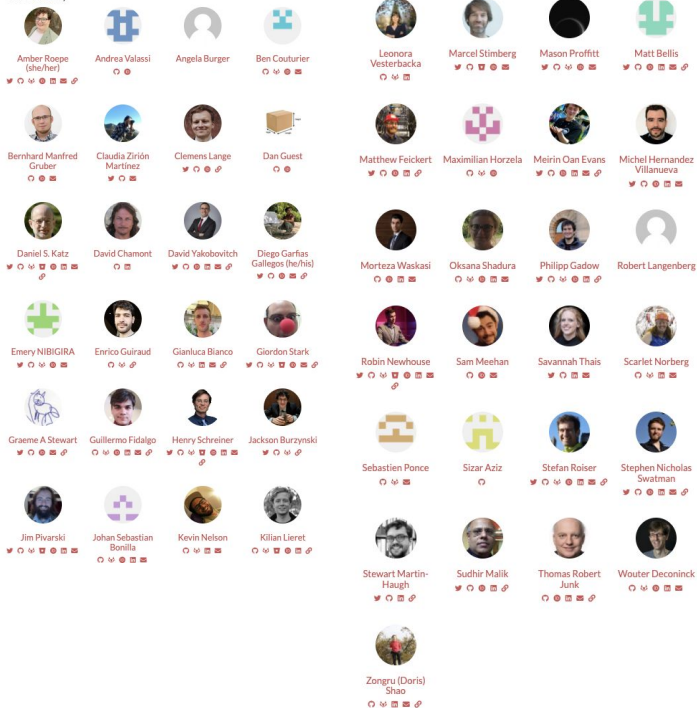
I want to know more about: new tricks in
Python and command line tools

HSF Educator/Mentor community

<https://hepsoftwarefoundation.org/training/educators.html>

Here is the list of HSF members for a special thank you for everyone who made our workshops possible.

Our community



- **Join our hackathons**
 - **In 1 or more topics**
- **Join our community**
- **Become training Educator**
 - **a mentor, facilitator, instructor**

Stay Tuned! Follow us on Twitter

<https://twitter.com/HSFTraining>

- **Training events**
- **New material**
- **Sharing job offers!**



Group picture!