

UZH ML Workshop 2020

Introduction to the hands-on sessions




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1. hls4ml @ UZH ML: Tutorial

- Learn how to do ultra low-latency, low-resource inference on the edge with hls4ml
 - Network compression (quantisation with QKeras and pruning with TensorFlow Model Optimisation Toolkit)
 - Parallelisation and FPGA firmware synthesis with hls4ml
- When? Where?
 - 17th Nov (tomorrow), 9:00-12:00 (CET)
 - Same [zoom room](#) as for today
- Please register at:
 - [Agenda and Indico page](#)

UZH ML WORKSHOP: 


HLS4ML: ULTRA LOW-LATENCY DEEP NEURAL NETWORK INFERENCE ON FPGAS

17.11.20
University of Zürich

An event organised by mPP and UZH

Local organising committee:
Dariusz Farcughy (UZH)
David Lancierini (UZH)
Vincenzo Massimi Misure (UZH)

mPP coordinators:
Thea K. Arrestad (CERN)
Jennifer Ngadiuba (Caltech)
Mauricio Pardo (CERN)
Vladimir Lencar (CERN)
Sioni Summers (CERN)
Jean-Roch Vimeux (Caltech)



mPP

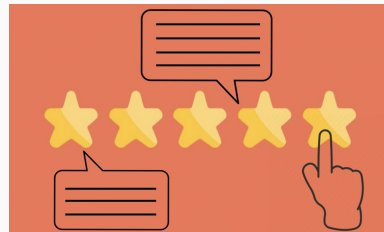
Lecturers:
Thea Arrestad, Sioni Summers (CERN)

Learn how to do ultrafast Deep Neural Network inference on FPGAs. Topics include model quantization, compression and synthesising FPGA firmware

Registration: <https://indico.cern.ch/e/hls4mlatUZH>

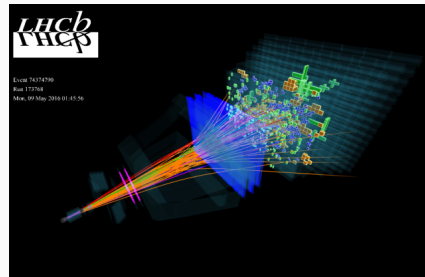
2. NLP @ UZH ML: Tutorial

- Learn how to convert collected data into actionable business insights using Natural Language Processing (NLP) and Machine Learning (ML) techniques.
 - Focus on real data preprocessing
 - Model selection, testing and training
- When? Where?
 - 17th Nov (tomorrow), 14:00-16:00 (CET)
 - Same [zoom room](#) as for today
- Please register at:
 - [Agenda and indico page](#)



3. GANs @ UZH ML: Tutorial

- Learn the basic structure of GANs and implement generative methods to simulate samples of a Monte Carlo dataset for High Energy Physics.
 - Implementation of methods to prevent mode collapse
 - Comparison of distributions of train dataset and GANs output
- When? Where?
 - 17th Nov (tomorrow), 16:10-19:30 (CET)
 - Same [zoom room](#) as for today
- Please register at:
 - [Agenda and indico page](#)



See you tomorrow!