## **SMARTHEP Edge Machine Learning School**



Contribution ID: 62 Type: Poster only

## Optimizing Multi-Model Compression for Resource-Constrained Devices (Poster Upload)

Monday 23 September 2024 17:13 (1 minute)

We address the challenge of compressing a sequence of models for deployment on computing- and memory-constrained devices. This task differs from single model compression, as the decision to apply compression schemes either independently or jointly across all sub-networks introduces a new degree of freedom. We evaluate the performance of pruning and quantization techniques for model compression in the context of a prototypical image restoration and object detection multi-model system. We propose an adaptation of Quantization Aware Training (QAT) and pruning techniques, where the multi-model system is fine-tuned as a single unit with an adapted loss function, rather than applying these techniques to each model individually.

## What of the following keywords match your abstract best?

Other

Please tick if you are a PhD student and wish to take part to the poster prize competition!

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**Session Classification:** Flash talks / poster session