Conference Paper Title*

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1st André Lucena Ribas Ferreira
University of minho
Braga, Portugal
pg52672@uminho.pt

1st Carlos Eduardo da Silva Machado
University of minho
Braga, Portugal
pg52675@uminho.pt

1st Goncalo Manuel Maia de Sousa
University of minho
Braga, Portugal
pg52682@uminho.pt

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I. Introduction

- Machine learning has increased in popularity
  - image classification
- studies have tried to analyse I/O patterns in DL Workflows (source)
- very few get down to kernel level
- eBPF are ...
- we seek to provide a tool to Characterize DL workloads using eBPF's

II. Background

- Dl involves iterating through a dataset
- passing it through all the layers to calculate a loss (forward pass)
- use calculated loss to update the learnable parameters of the network
- once all data is read exactly once one epoch as passed (I/O intensive)
- pytorch is a DL framework
- Distributed DNN training (data paralellism)
- checkpointing involves saving the model state
- in pytorch its done with torch.save() and in offitial workloads is done in between epochs
- eBPF's

III. Related work

IV. Design

- Grafana

V. Evaluation Methodology

- dstat, nvidia-smi to get cost of using the tool
- grafana dashboard to get data

VI. Evaluation Results

VII. Conclusion

Identify applicable funding agency here. If none, delete this.