moco

30% fewer FLOPS in inference -> meet energy and latency constraints faster.

Problem:

Classification models must run efficiently in **real-time embedded systems**. Optimizing these models for low energy and low latency is complex and requires multiple people-months of engineering time.

Solution:

moco offers an alternative: a mathematical optimization library that analyzes the model's input data and derives rules consistent with the model's predictions. These rules can be used in lieu of inferencing the model for some data, saving unnecessary computations. This produces models that are both low-energy and low-latency.

Use Cases:

Financial: Real-time fraud detection on edge payment terminals; portfolio risk classification running on high-frequency trading (HFT) systems.

Cybersecurity: Intrusion detection for network traffic.

Energy: Predictive maintenance on smart grid sensors under power limits.

Security (cameras, drones): minimal latency threat detection and extended battery.

Defense: Threat detection on the edge (ex. Navy, submarines).

Environmental: Weather, Natural Disaster Prediction & Rescue Efforts w/ robots.

Interested? Contact Us!

We're looking to **validate moco on models** that are currently rate-limited or energy-limited. Schedule a consultation to see how your models can benefit.

Contact:
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