WG 3: Machine Learning

Discussion summary

Usage of dataset:

- WG will test dataset and work towards publishing it
- Reservations:
  - Members reluctant to compare their model
  - What about cheating

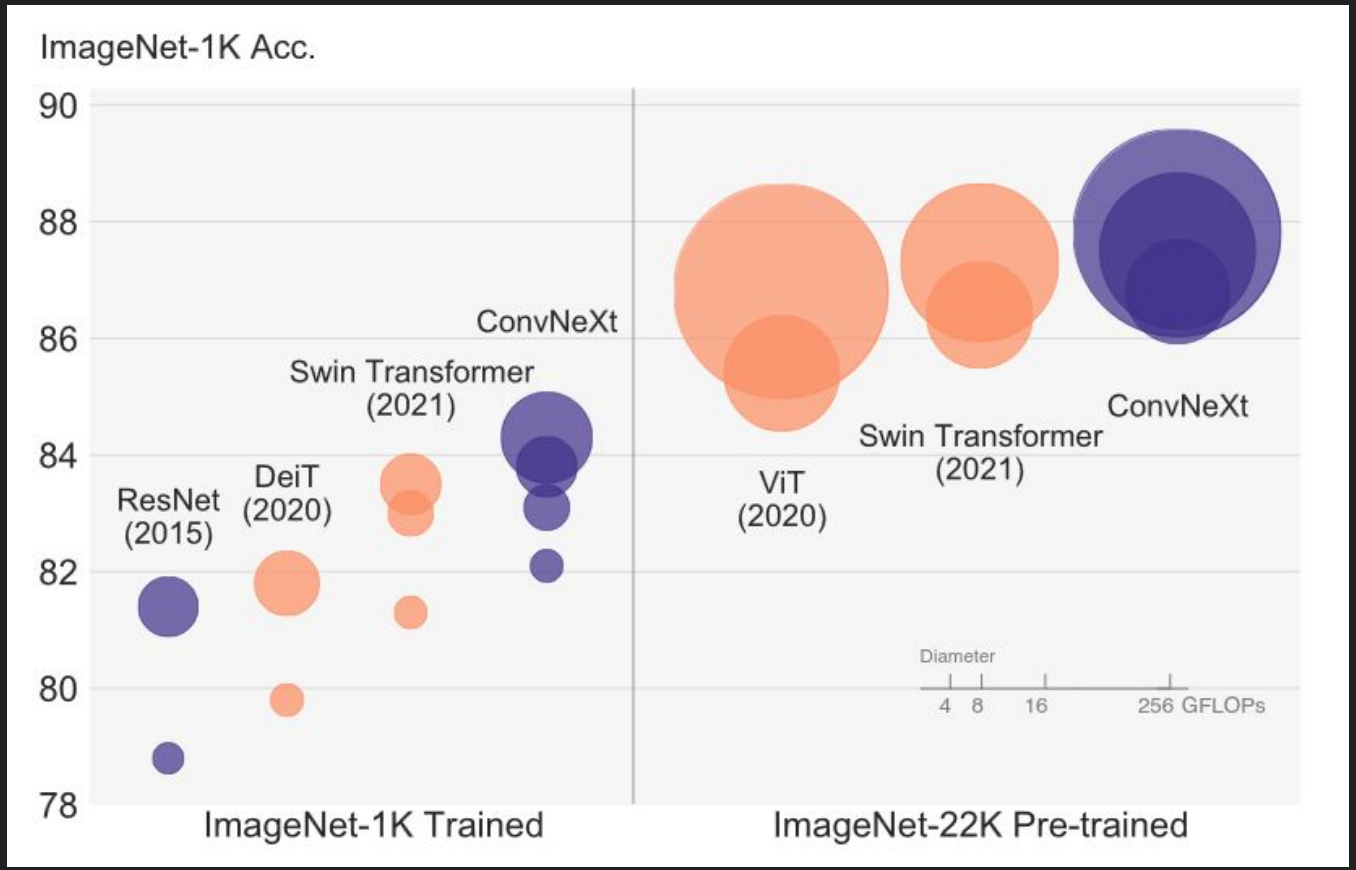
Continuation:

- Uncertainties:
  - Group ready/interested to address uncertainties in QPE
  - However: ML introduces an additional type of uncertainty
- Time-merged retrievals

Recommendations

Usage of dataset:

- Up to community to encourage usage of the benchmark dataset
- **Benchmark datasets play foundational role in ML**
- **Everyone benefits from better ML models**


ImageNet-1K Acc.
90
88
86
84
82
80
78
ResNet
(2015)
DeiT
(2020)
Swin Transformer
(2021)
ConvNeXt
ViT
(2020)
Swin Transformer
(2021)
ConvNeXt
Diameter
4 8 16 256 GFLOPs
ImageNet-1K Trained
ImageNet-22K Pre-trained

Recommendations

Uncertainties:

- Tools to handle uncertainties are readily available
- Need guidance on what exactly is required
  - What are applications that actually *use* uncertainties?