S^4L : Self- Supervised Semi-Supervised Learning

Summary

1. Combine semi-supervised & self-supervised approaches

2. The objective function is :

$$\min_{\theta} \mathcal{L}_l(D_l, \theta) + w\mathcal{L}_u(D_u, \theta)$$

$\mathcal{L}_l$: standard supervised loss

$\mathcal{L}_u$: self-supervised loss

3. for $\mathcal{L}_u$, they tried 2 self-supervised task :

- predicting the rotation of an image.
- exemplar : . learn visual representation that is invariant to a wide range of transformations.
  . transformations of the same image should have the same representation & conversly for diff. images.

Scanned with CamScanner