

## Regularization techniques

- Transfer learning [Alzubaidi et al., 2020]
- Data Augmentation [Shorten and Khoshgoftaar, 2019]
- Early stopping
- L1 and L2 regularization
- Batch normalization
- Dropout [Chen et al., 2020b]

**Reduction of the complexity reduce the capability of the models to learn complex-common dependencies**

**Small Sample Size and Overfitting**

## Architecture enhancement

- Shallow Networks / enhanced networks
- Cosine-CKN [Mohammadnia-Qaraei et al., 2018]
- ConvRFF with Bayes [Wang et al., 2021]
- ConvRFF Bayes and bypass [Wang et al., 2021]
- RFF U-Net-like [Jimenez-Castaño et al., 2021]

**Usually not form semantic segmentation models, if they, insertion on bottleneck**