**Basic Architecture:**

**CheXNet** [[1]](https://arxiv.org/pdf/1711.05225.pdf) is a 121 layer **Dense Net** developed by Stanford researchers that can detect pneumonia from chest X-rays at a level exceeding practicing radiologists. The weights of the model are uploaded into this notebook and used to train on our data to classify normal vs opacity (typical, atypical, indeterminate) cases. Contrast Limited Adaptive Histogram Equalization (**CLAHE**) is used for pre-processing and some augmentation techniques are applied. For interpretability, **GRAD-CAM** is used to see if the model is paying attention to the opacities (comparing to the ground truth bounding boxes).