MARCH RESEARCH PLAN:

Now that I have the system up and running, I plan on testing out a few CNN architectures I’ve reviewed in the relevant literature. Mainly...

1. Generative Adversarial Networks for Hyperspectral Image Classification: <https://ieeexplore.ieee.org/document/8307247>
   1. “Generative Adversarial Networks is the most interesting idea in the last ten years in machine learning” - Yann LeCun
   2. Given some real data set **R**, **G** is the *generator*, trying to create fake data that looks just like the genuine data, while **D** is the *discriminator*, getting data from either the real set or **G** and labeling the difference
   3. Generate *fake* Landsat data, eventually the **G** will be trained to become better at eluding the **D**, and the **D** is trained to become better at determining real data from fake
   4. Could also be better for generalization to new image areas resulting from disasters
2. RiFCN: Recurrent Network in Fully Convolutional Network for Semantic Segmentation of High Resolution Remote Sensing Images: <https://arxiv.org/pdf/1805.02091.pdf>
   1. an end-to-end trainable, bidirectional network architecture, which is composed of a forward stream and a backward stream, for the generation and fusion of multi-level convolutional features
   2. Has shown to be very accurate compared to FCN/SegNet based approaches