

*Deep Learning for Microscopy Image Analysis  
in Materials Science: Advancing Research  
and Education Workshop*

## **Data Augmentation Techniques**

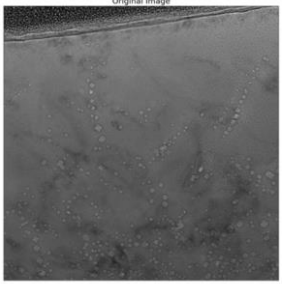
Dr. Shradha Agarwal, Tommy Wong

# Use a sliding window cropper to enhance the dataset

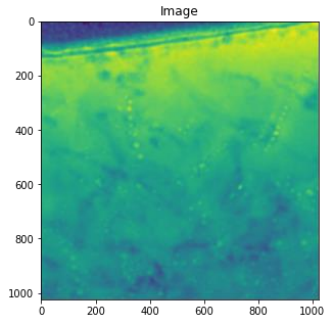
# Rotate and flip the image to increase variability

# Adding noise to simulate noises during imaging

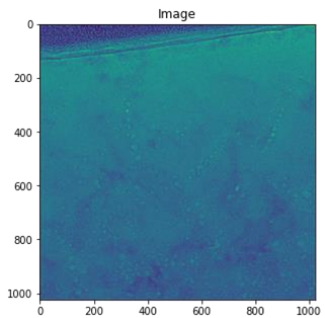
Original



Blur



Salt & Pepper



Gaussian

