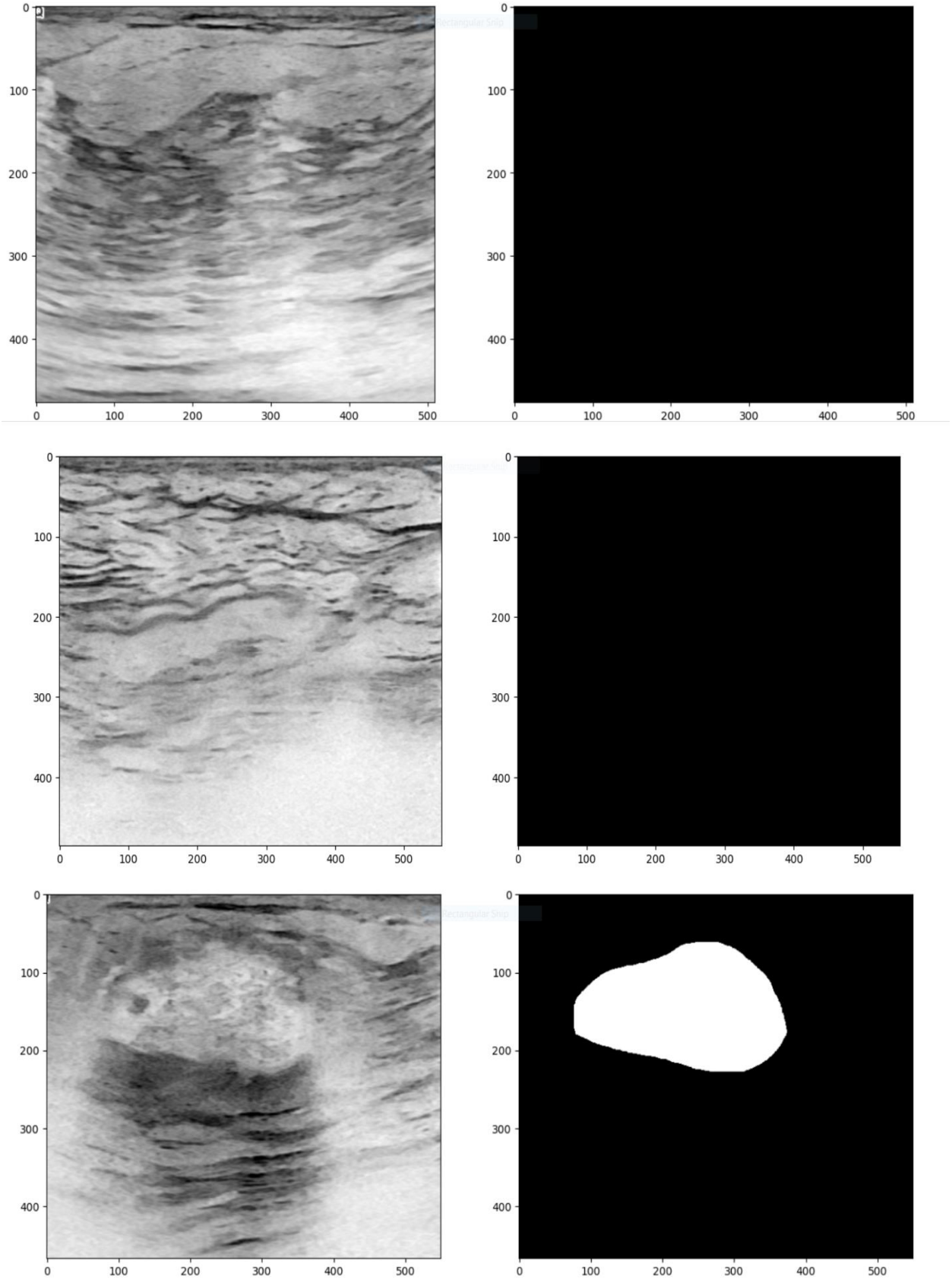
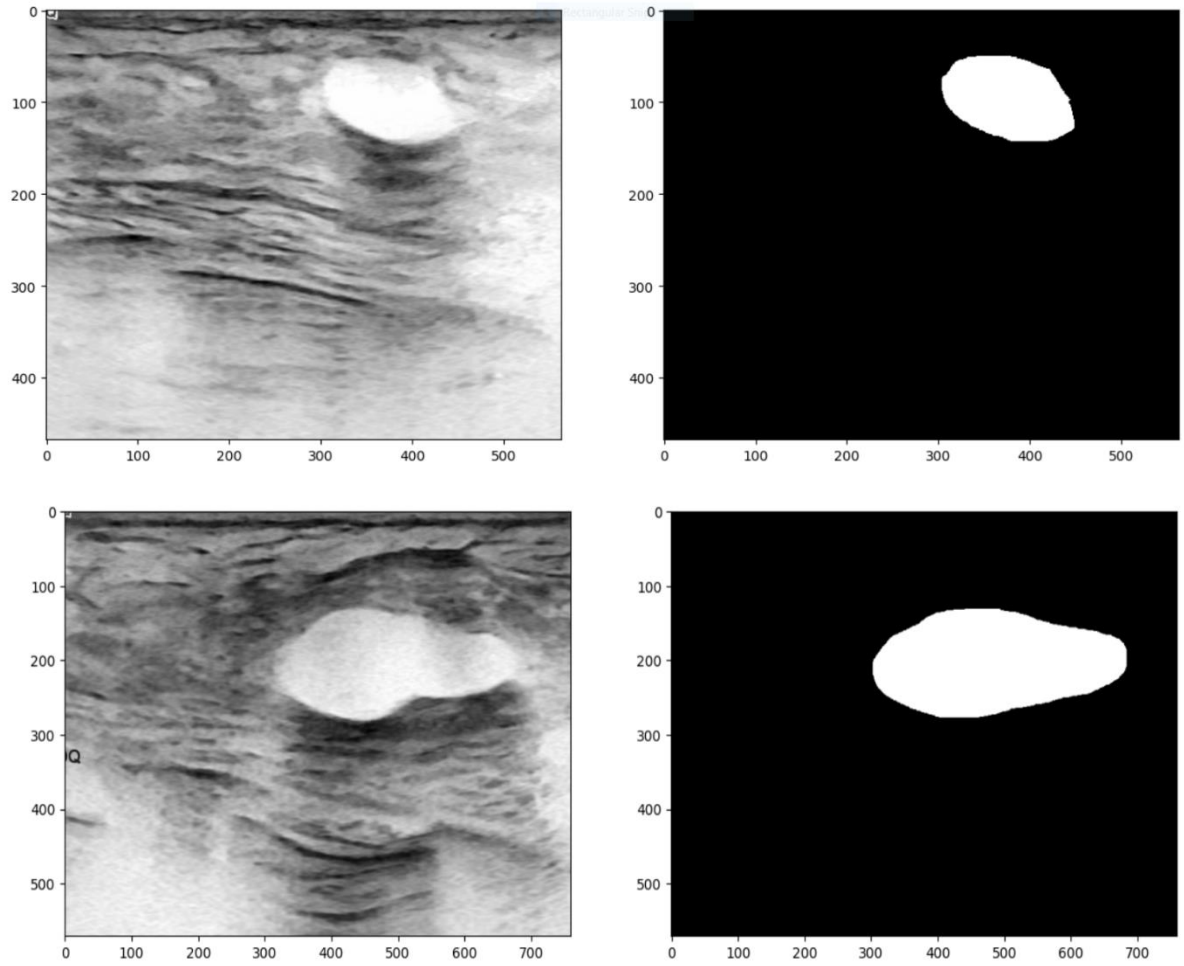
Screenshots after running the Code:





```
pro_images, pro_masks = load_data(img_dir, images)
```

```
(780, 256, 256, 3) (780, 256, 256)
```

+ Code + Markdown

```
print(pro_images.shape)
print(pro_masks.shape)
```

```
(780, 256, 256, 3)
(780, 256, 256)
```

```
X_train, X_test, y_train, y_test = train_test_split(pro_images, pro_masks, test_size=0.2, random_state=42)
```

```
# print shape of splitted data
X_train.shape, X_test.shape, y_train.shape, y_test.shape
```

```
((624, 256, 256, 3), (156, 256, 256, 3), (624, 256, 256), (156, 256, 256))
```

Layer (type)	Output Shape	Param #	Connected to
input_layer (InputLayer)	(None, 256, 256, 3)	0	-
conv2d (Conv2D)	(None, 256, 256, 16)	448	input_layer[0][0]
batch_normalization (BatchNormalizatio…	(None, 256, 256, 16)	64	conv2d[0][0]
conv2d_1 (Conv2D)	(None, 256, 256, 16)	2,320	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 256, 256, 16)	64	conv2d_1[0][0]
max_pooling2d (MaxPooling2D)	(None, 128, 128, 16)	0	batch_normalizat…
dropout (Dropout)	(None, 128, 128, 16)	0	max_pooling2d[0]…
conv2d_2 (Conv2D)	(None, 128, 128, 32)	4,640	dropout[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 128, 128, 32)	128	conv2d_2[0][0]
conv2d_3 (Conv2D)	(None, 128, 128, 32)	9,248	batch_normalizat…
conv2d_3 (Conv2D)	(None, 128, 128, 32)	9,248	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 128, 128, 32)	128	conv2d_3[0][0]
max_pooling2d_1 (MaxPooling2D)	(None, 64, 64, 32)	0	batch_normalizat…
dropout_1 (Dropout)	(None, 64, 64, 32)	0	max_pooling2d_1[…
conv2d_4 (Conv2D)	(None, 64, 64, 64)	18,496	dropout_1[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 64, 64, 64)	256	conv2d_4[0][0]
conv2d_5 (Conv2D)	(None, 64, 64, 64)	36,928	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 64, 64, 64)	256	conv2d_5[0][0]
max_pooling2d_2 (MaxPooling2D)	(None, 32, 32, 64)	0	batch_normalizat…
dropout_2 (Dropout)	(None, 32, 32, 64)	0	max_pooling2d_2[…
conv2d_6 (Conv2D)	(None, 32, 32, 128)	73,856	dropout_2[0][0]

conv2d_6 (Conv2D)	(None, 32, 32, 128)	73,856	dropout_2[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 32, 32, 128)	512	conv2d_6[0][0]
conv2d_7 (Conv2D)	(None, 32, 32, 128)	147,584	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 32, 32, 128)	512	conv2d_7[0][0]
max_pooling2d_3 (MaxPooling2D)	(None, 16, 16, 128)	0	batch_normalizat…
dropout_3 (Dropout)	(None, 16, 16, 128)	0	max_pooling2d_3[…
conv2d_8 (Conv2D)	(None, 16, 16, 256)	295,168	dropout_3[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 16, 16, 256)	1,024	conv2d_8[0][0]
conv2d_9 (Conv2D)	(None, 16, 16, 256)	590,080	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 16, 16, 256)	1,024	conv2d_9[0][0]
conv2d_transpose (Conv2DTranspose)	(None, 32, 32, 128)	295,040	batch_normalizat…
conv2d_transpose (Conv2DTranspose)	(None, 32, 32, 128)	295,040	batch_normalizat…
concatenate (Concatenate)	(None, 32, 32, 256)	0	conv2d_transpose… batch_normalizat…
dropout_4 (Dropout)	(None, 32, 32, 256)	0	concatenate[0][0]
conv2d_10 (Conv2D)	(None, 32, 32, 128)	295,040	dropout_4[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 32, 32, 128)	512	conv2d_10[0][0]
conv2d_11 (Conv2D)	(None, 32, 32, 128)	147,584	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 32, 32, 128)	512	conv2d_11[0][0]
conv2d_transpose_1 (Conv2DTranspose)	(None, 64, 64, 64)	73,792	batch_normalizat…
concatenate_1 (Concatenate)	(None, 64, 64, 128)	0	conv2d_transpose… batch_normalizat…
dropout_5 (Dropout)	(None, 64, 64, 128)	0	concatenate_1[0]…
conv2d_12 (Conv2D)	(None, 64, 64, 64)	73,792	dropout_5[0][0]

conv2d_12 (Conv2D)	(None, 64, 64, 64)	73,792	dropout_5[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 64, 64, 64)	256	conv2d_12[0][0]
conv2d_13 (Conv2D)	(None, 64, 64, 64)	36,928	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 64, 64, 64)	256	conv2d_13[0][0]
conv2d_transpose_2 (Conv2DTranspose)	(None, 128, 128, 32)	18,464	batch_normalizat…
concatenate_2 (Concatenate)	(None, 128, 128, 64)	0	conv2d_transpose… batch_normalizat…
dropout_6 (Dropout)	(None, 128, 128, 64)	0	concatenate_2[0]…
conv2d_14 (Conv2D)	(None, 128, 128, 32)	18,464	dropout_6[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 128, 128, 32)	128	conv2d_14[0][0]
conv2d_15 (Conv2D)	(None, 128, 128, 32)	9,248	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 128, 128, 32)	128	conv2d_15[0][0]
	32)		
batch_normalizatio… (BatchNormalizatio…	(None, 128, 128, 32)	128	conv2d_15[0][0]
conv2d_transpose_3 (Conv2DTranspose)	(None, 256, 256, 16)	4,624	batch_normalizat…
concatenate_3 (Concatenate)	(None, 256, 256, 32)	0	conv2d_transpose… batch_normalizat…
dropout_7 (Dropout)	(None, 256, 256, 32)	0	concatenate_3[0]…
conv2d_16 (Conv2D)	(None, 256, 256, 16)	4,624	dropout_7[0][0]
batch_normalizatio… (BatchNormalizatio…	(None, 256, 256, 16)	64	conv2d_16[0][0]
conv2d_17 (Conv2D)	(None, 256, 256, 16)	2,320	batch_normalizat…
batch_normalizatio… (BatchNormalizatio…	(None, 256, 256, 16)	64	conv2d_17[0][0]
conv2d_18 (Conv2D)	(None, 256, 256, 1)	17	batch_normalizat…

Total params: 2,164,593 (8.26 MB)

Trainable params: 2,161,649 (8.25 MB)

Non-trainable params: 2,944 (11.50 KB)