APPENDIX A

Code Listing 1. GAN Discriminator

```
Conv2D(32, kernel_size=5,
          strides=2, padding='same',
          kernel_initializer=RandomNormal(stddev=std),
          input_shape=(64, 64, 3)),
LeakyReLU(alpha=leaky_alpha),

Conv2D(64, kernel_size=5, ...),
BatchNormalization(),
LeakyReLU(alpha=leaky_alpha),

Conv2D(128, kernel_size=5, ...),
BatchNormalization(),
LeakyReLU(alpha=leaky_alpha),

Flatten(),
Dense(1,
          kernel_initializer=RandomNormal(stddev=std)),
Activation('sigmoid')
```

Code Listing 2. GAN Generator

```
Dense(8*8*384, input_shape=(input_size,),
          kernel_initializer=RandomNormal(stddev=std)),
Reshape(target_shape=(8, 8, 384)),
BatchNormalization(),
LeakyReLU(alpha=leaky_alpha),

Conv2DTranspose(192, kernel_size=5, ...),
BatchNormalization(),
LeakyReLU(alpha=leaky_alpha),

Conv2DTranspose(96, kernel_size=5, ...),
BatchNormalization(),
LeakyReLU(alpha=leaky_alpha),

Conv2DTranspose(3, kernel_size=5, ...),
Activation('tanh')
```