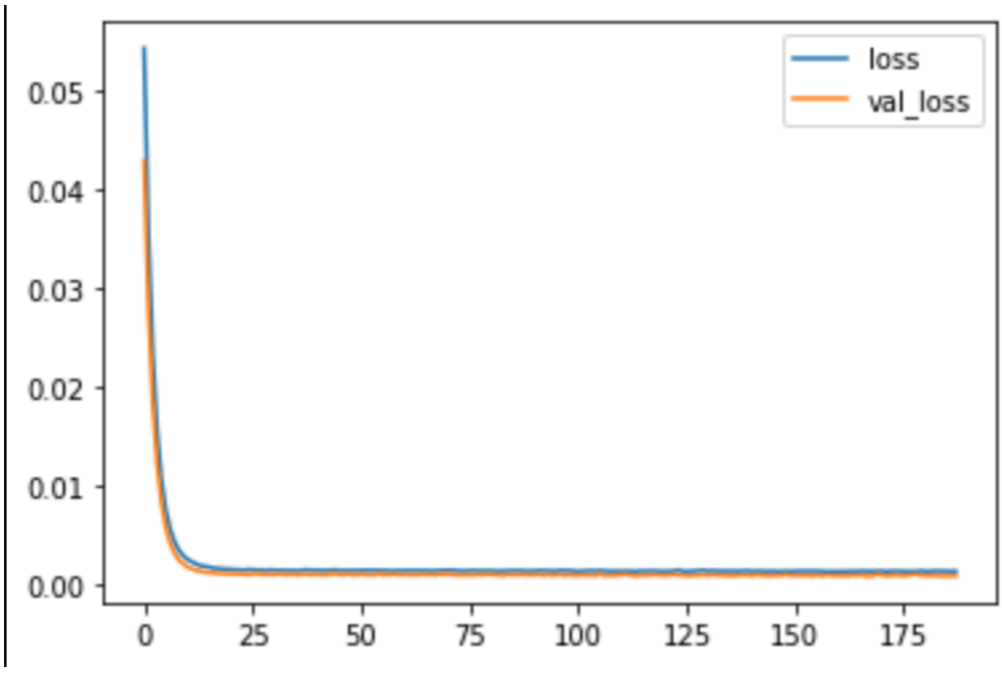
Model 1

Mean Loss:	0.00210681
Mean Validation Loss:	0.00150978
Batch Size:	128

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(232, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



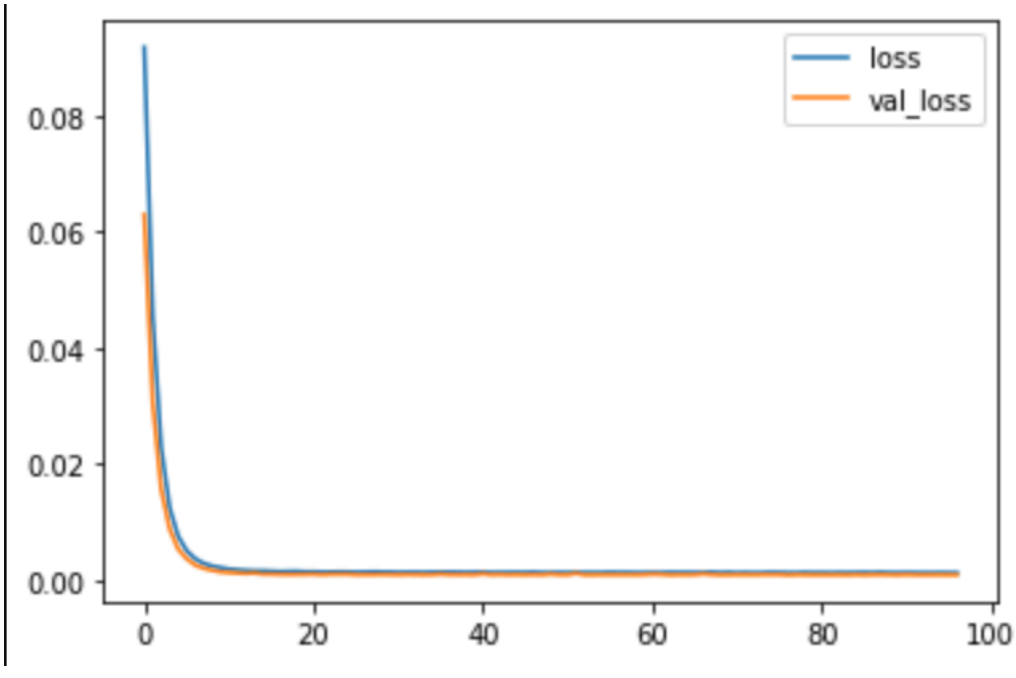
Model 2

Mean Loss: 0.00317233

Mean Validation Loss: 0.00217707

Batch Size: 128

```
model = Sequential()

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(232, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(464, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(232, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



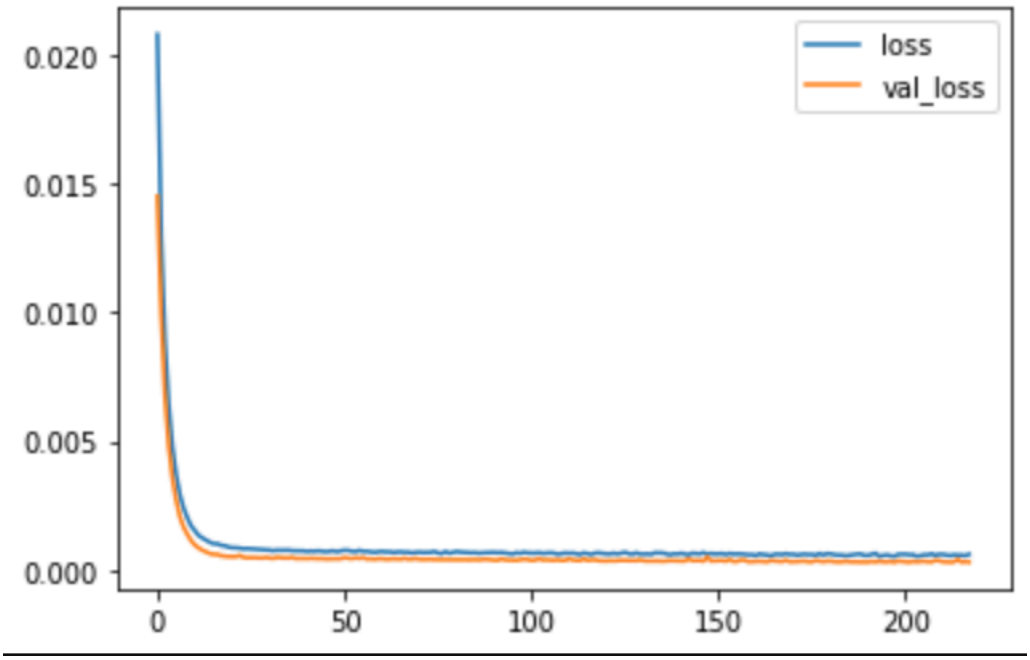
Model 3

Mean Loss: 0.000962387

Mean Validation Loss: 0.000614565

Batch Size: 128

```
model = Sequential()

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



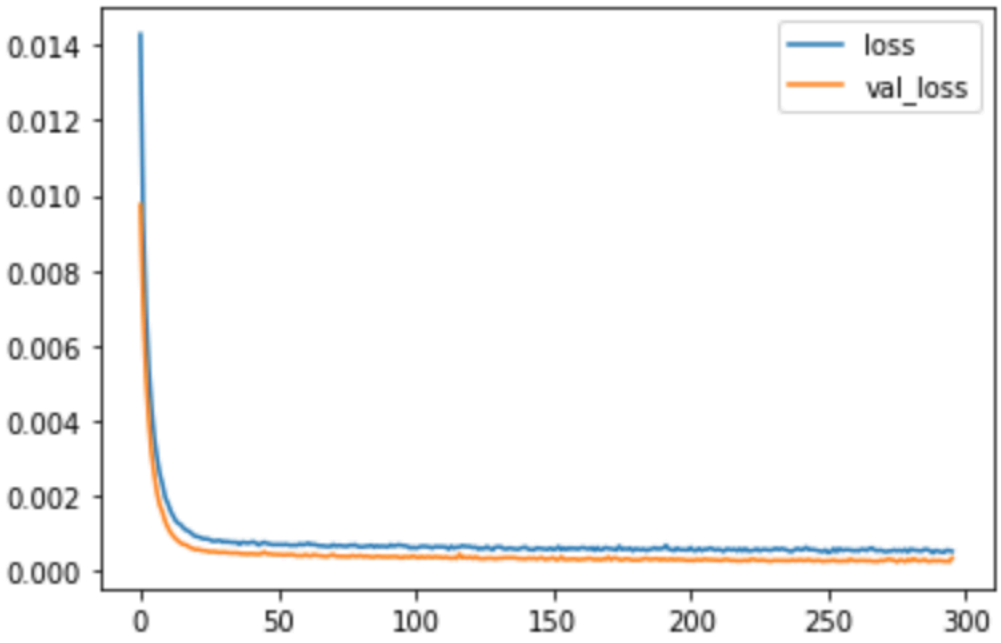
Model 4

Mean Loss: 0.000815947

Mean Validation Loss: 0.000490422

Batch Size: 128

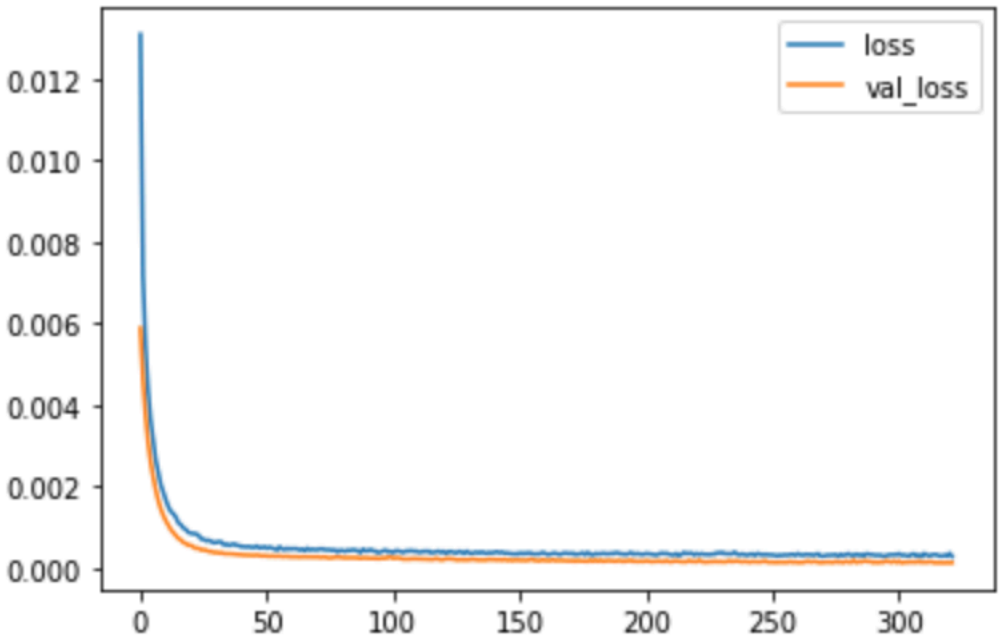
```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



Model 5

Mean Loss:	0.000542663
Mean Validation Loss:	0.000305115
Batch Size:	128

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



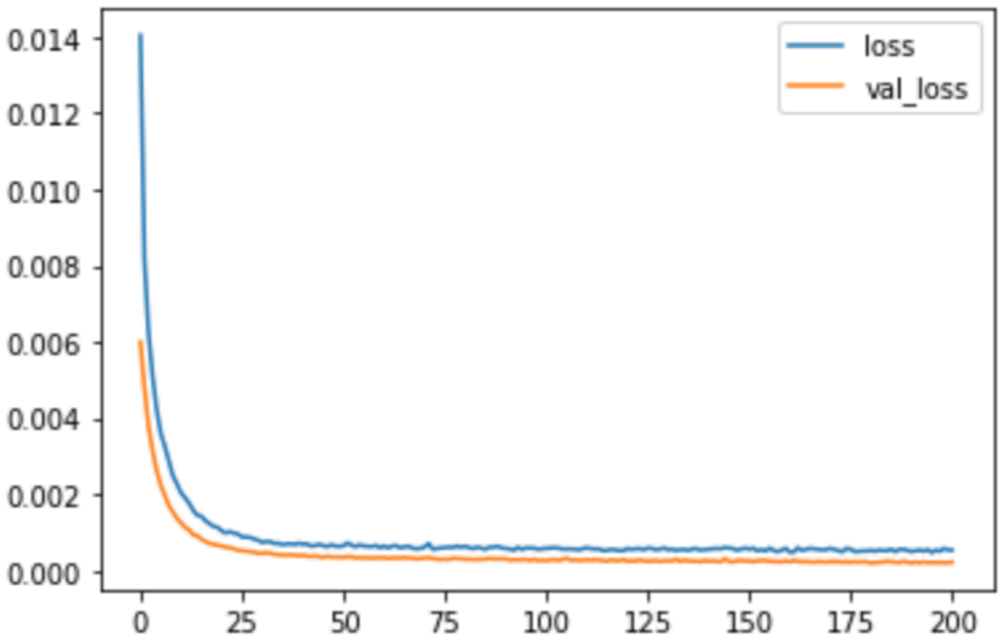
Model 6

Mean Loss: 0.00088016

Mean Validation Loss: 0.000459758

Batch Size: 128

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(14, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



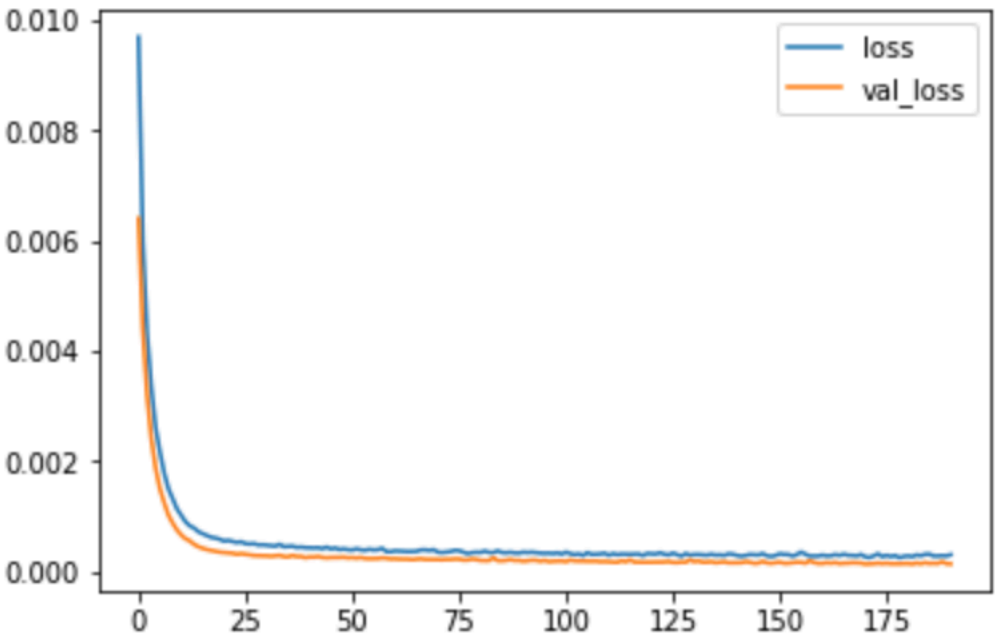
Model 7

Mean Loss: 0.000530716

Mean Validation Loss: 0.000331629

Batch Size: 128

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(116, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



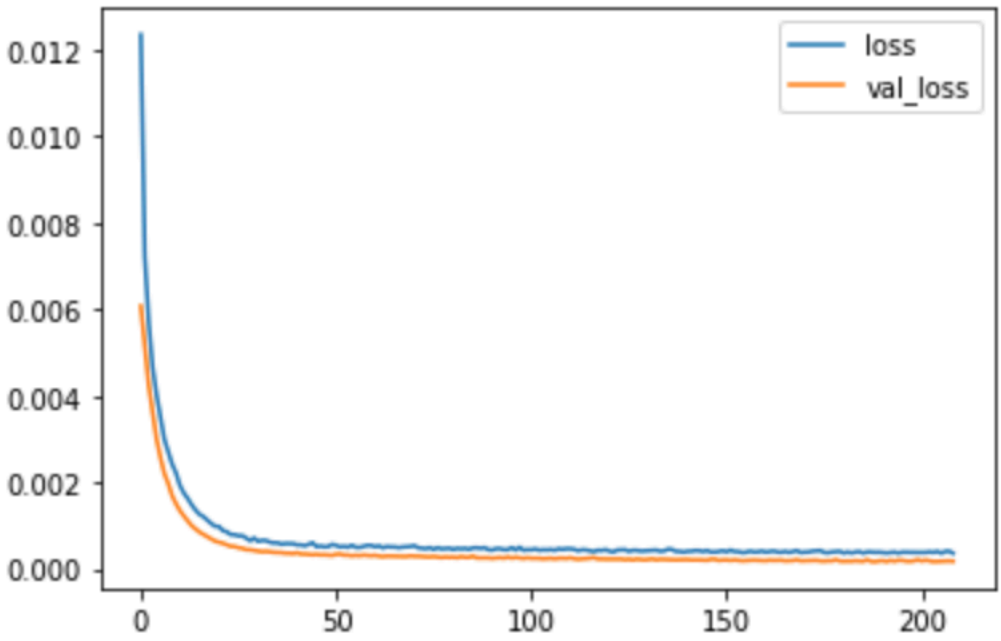
Model 8

Mean Loss: 0.000713679

Mean Validation Loss: 0.000428158

Batch Size: 128

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



Model 9

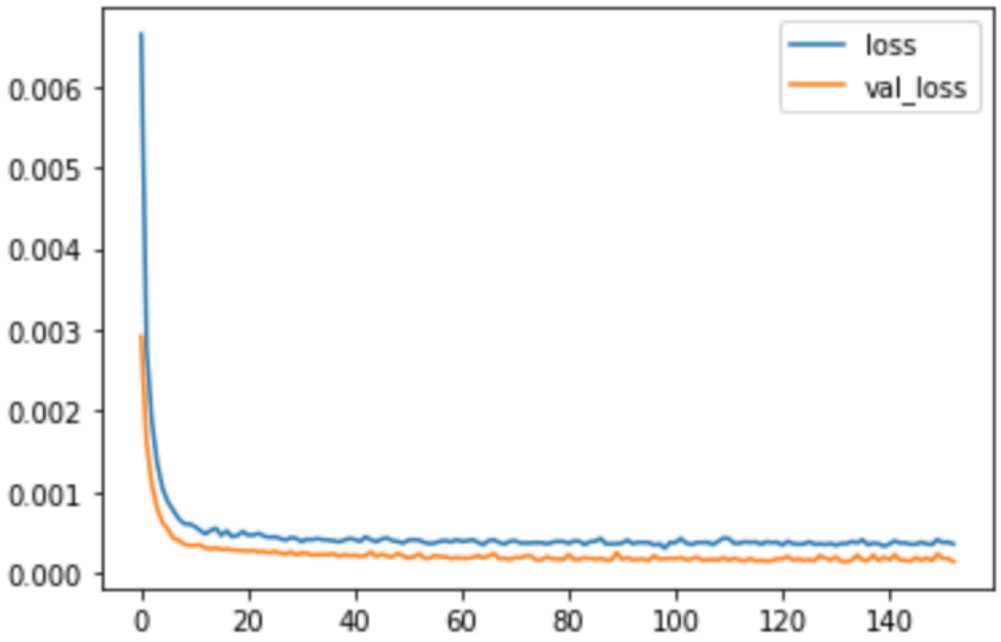
Mean Loss: 0.000486567

Mean Validation Loss: 0.000252159

Batch Size: 32

Model 5 with a much smaller batch size

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



Model 10

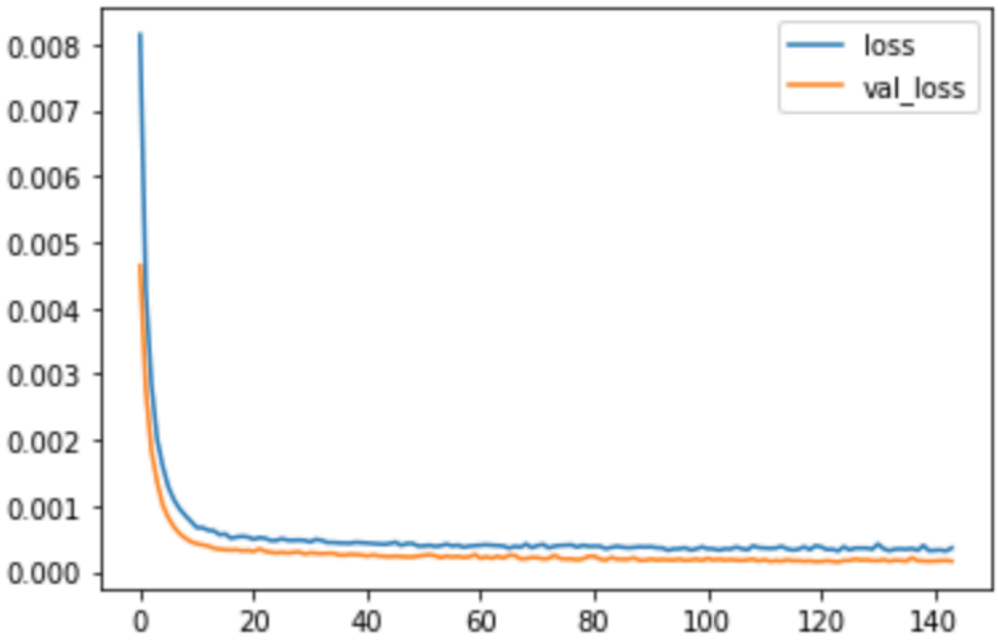
Mean Loss: 0.000540004

Mean Validation Loss: 0.000306904

Batch Size: 64

Model 5 with a smaller batch size

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



Model 11

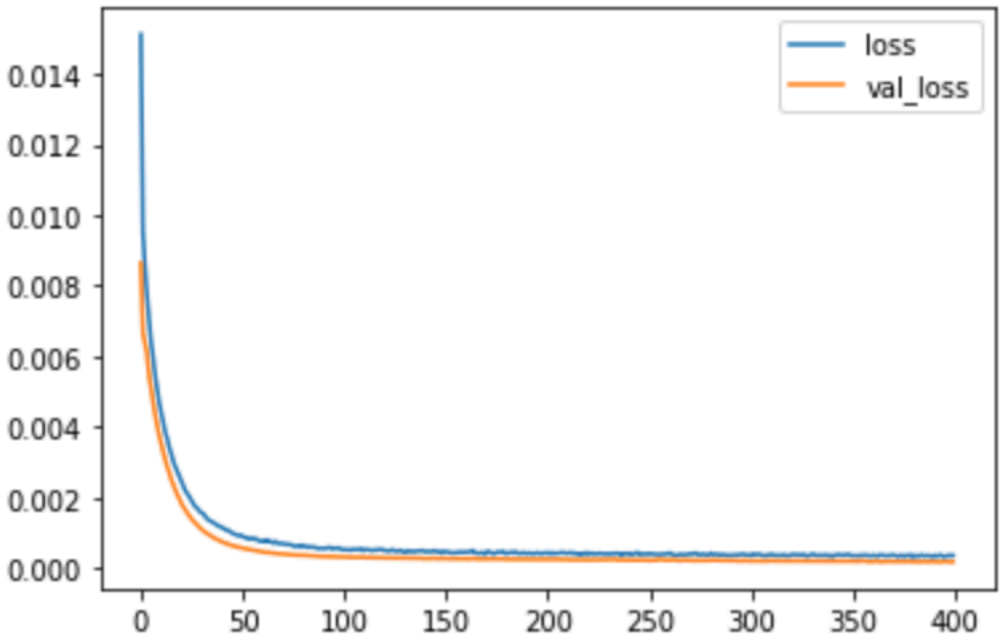
Mean Loss: 0.000767686

Mean Validation Loss: 0.000498059

Batch Size: 512

Model 5 with a larger batch size

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```



Model 12

Mean Loss: 0.000448769

Mean Validation Loss: 0.000225915

Batch Size: 32

Model 9, the best so far, with more patience and epochs

```
model = Sequential()

model.add(Dense(29, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(58, activation='relu', kernel_regularizer=regularizers.l2(0.0001)))
model.add(Dropout(0.5))

model.add(Dense(units=1, activation='sigmoid'))

model.compile(loss=loss_param, optimizer=optimizer_param)
```