12/14/2018 Resolution

```
In [1]:
         import plotly as py
         import plotly.graph objs as go
         import plotly.io as pio
         import numpy as np
         import math
         from numpy import genfromtxt
         import os
         resolutionData = 'Data\\Resolution\\'
In [10]: #Sensor file
         FSR = genfromtxt(resolutionData+'fsr.txt', delimiter=',')
         IR = genfromtxt(resolutionData+'ir.txt', delimiter=',')
Out[10]: 238
In [17]: #Resolution
         corr1 = abs(FSR.max()-FSR.min())
         corr2 = abs(IR.max()-IR.min())
         #Bar plot
         data2 = [go.Bar(
                      x=['FSR', 'IR'],
                      y=[corr1, corr2],
                      text=[corr1, corr2],
                      textposition = 'auto',
         )]
         layout = go.Layout(
             title='Resolution of the FSR and IR sensors'
         )
         fig = go.Figure(data=data2, layout=layout)
         py.offline.plot(fig, filename='Resolution.html')
Out[17]: 'file://C:\\Users\\OndrejSpetko\\Desktop\\School\\MED7\\HRV-tracker\\Breathin
         g\\PostProcessing\\Python\\Resolution.html'
```

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```
In [12]: #Scatter plot
         # Create traces
         trace0 = go.Scatter(
             x = np.arange(FSR.shape[0]),
             y = FSR,
             mode = 'lines',
             name = 'FSR'
         )
         trace1 = go.Scatter(
             x = np.arange(IR.shape[0]),
             y = IR,
             mode = 'lines',
             name = 'IR'
         )
         #FSR
         data = [trace0]
         py.offline.plot(data, filename='FSRS.html')
         #IR
         data = [trace1]
         py.offline.plot(data, filename='IRS.html')
```