

02-Prophet-Trend-Changes

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1 Trend Changes

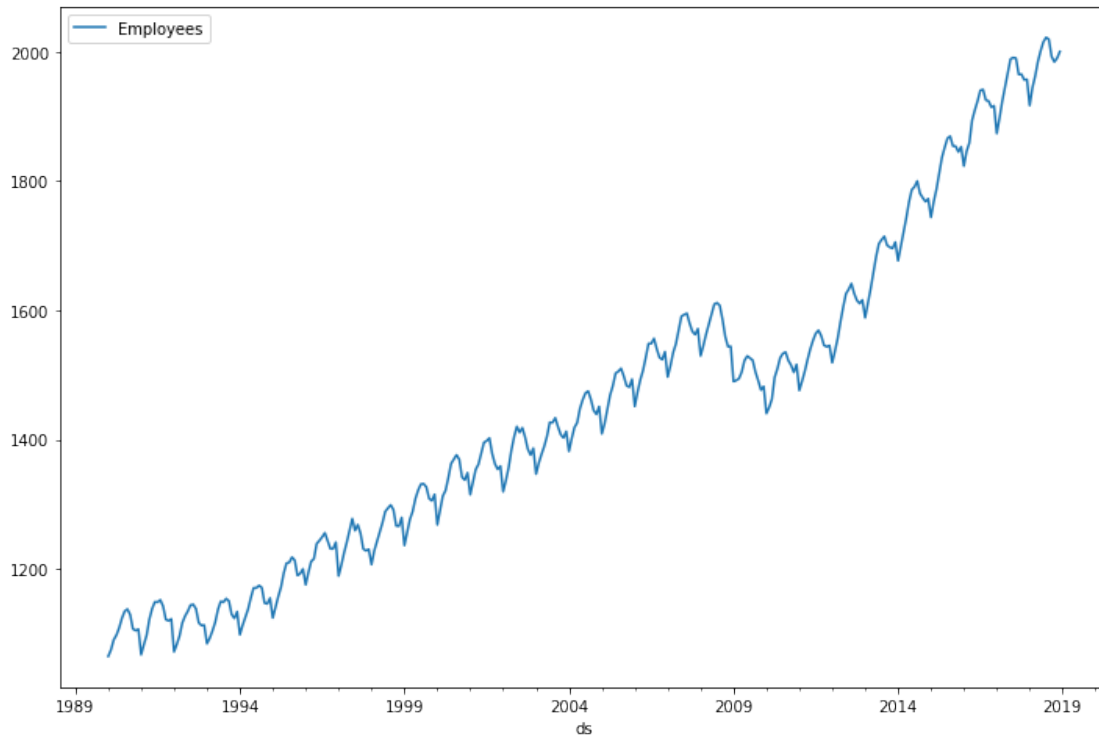
```
[2]: import pandas as pd
      from fbprophet import Prophet
      %matplotlib inline
```

```
[3]: df = pd.read_csv('../Data/HospitalityEmployees.csv')
```

```
[5]: df.columns = ['ds', 'y']
      df['ds'] = pd.to_datetime(df['ds'])
```

```
[8]: df.plot(x='ds', y='y', figsize=(12,8), label='Employees')
```

```
[8]: <matplotlib.axes._subplots.AxesSubplot at 0x11ab12898>
```



```
[9]: len(df)
```

```
[9]: 348
```

```
[10]: len(df) - 12
```

```
[10]: 336
```

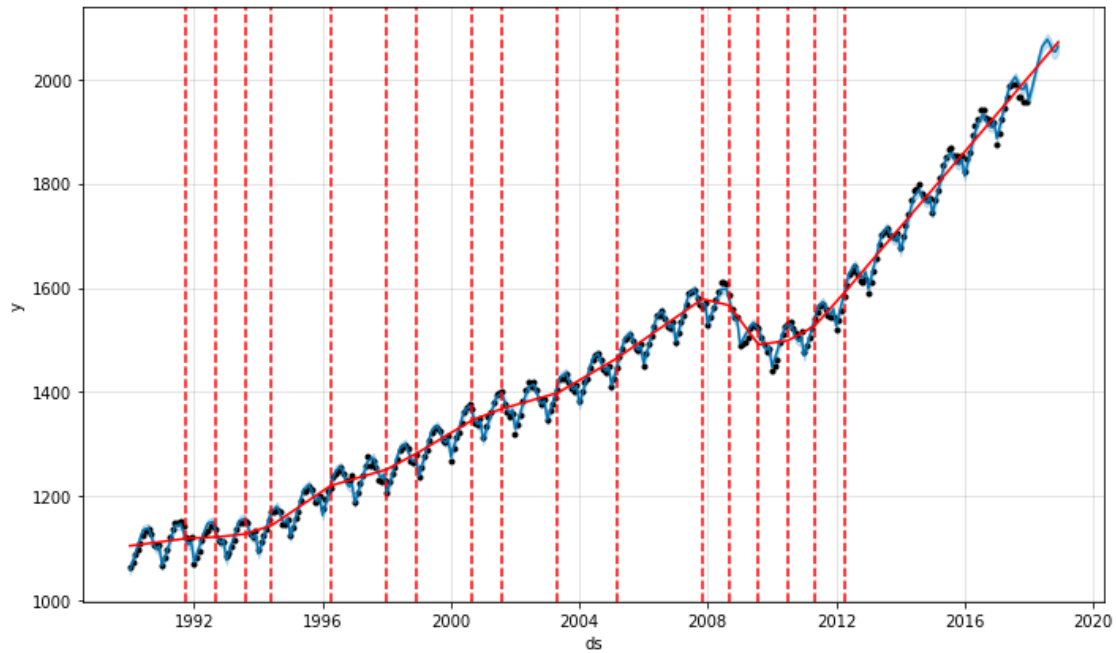
```
[12]: train = df.iloc[:336]
      test = df.iloc[336:]
```

```
[13]: m = Prophet()
      m.fit(train)
      future = m.make_future_dataframe(periods=12,freq='MS')
      forecast = m.predict(future)
```

```
INFO:fbprophet:Disabling weekly seasonality. Run prophet with
weekly_seasonality=True to override this.
INFO:fbprophet:Disabling daily seasonality. Run prophet with
daily_seasonality=True to override this.
/anaconda3/lib/python3.6/site-packages/pystan/misc.py:399: FutureWarning:
Conversion of the second argument of issubdtype from `float` to `np.floating` is
deprecated. In future, it will be treated as `np.float64 ==
```

```
np.dtype(float).type`.  
    elif np.issubdtype(np.asarray(v).dtype, float):
```

```
[14]: from fbprophet.plot import add_changepoints_to_plot  
fig = m.plot(forecast)  
a = add_changepoints_to_plot(fig.gca(), m, forecast)
```



```
[ ]:
```