

## Lesson 5: Time Series at Scale

- Time series with Facebook Prophet

```
from fbprophet import Prophet
df=pd.read_csv("https://raw.githubusercontent.com/jbrownlee/Datasets/master/airline-passengers.csv")
df['Month']= pd.to_datetime(df['Month'])
df = df.rename(columns={"Month": "ds", "Passengers": "y"})
df.head()

model = Prophet()
model.fit(df)

#predict for the next 10 months
future = model.make_future_dataframe(periods=10, freq='M')
forecast = model.predict(future)
forecast.head()
forecast[['ds', 'yhat', 'yhat_lower', 'yhat_upper', 'trend', 'trend_lower', 'trend_upper']]
#yhat is the prediction while yhat_lower and yhat_upper are the upper and lower boundaries

model.plot(forecast)
plt.show()
```



