

REMOTE VR & INSIGHT

Smart Factory

Presented by JamTa

Too BiG?

- Machines eveywhere!
- Button & switchesss all over the factory?

PROBLEM



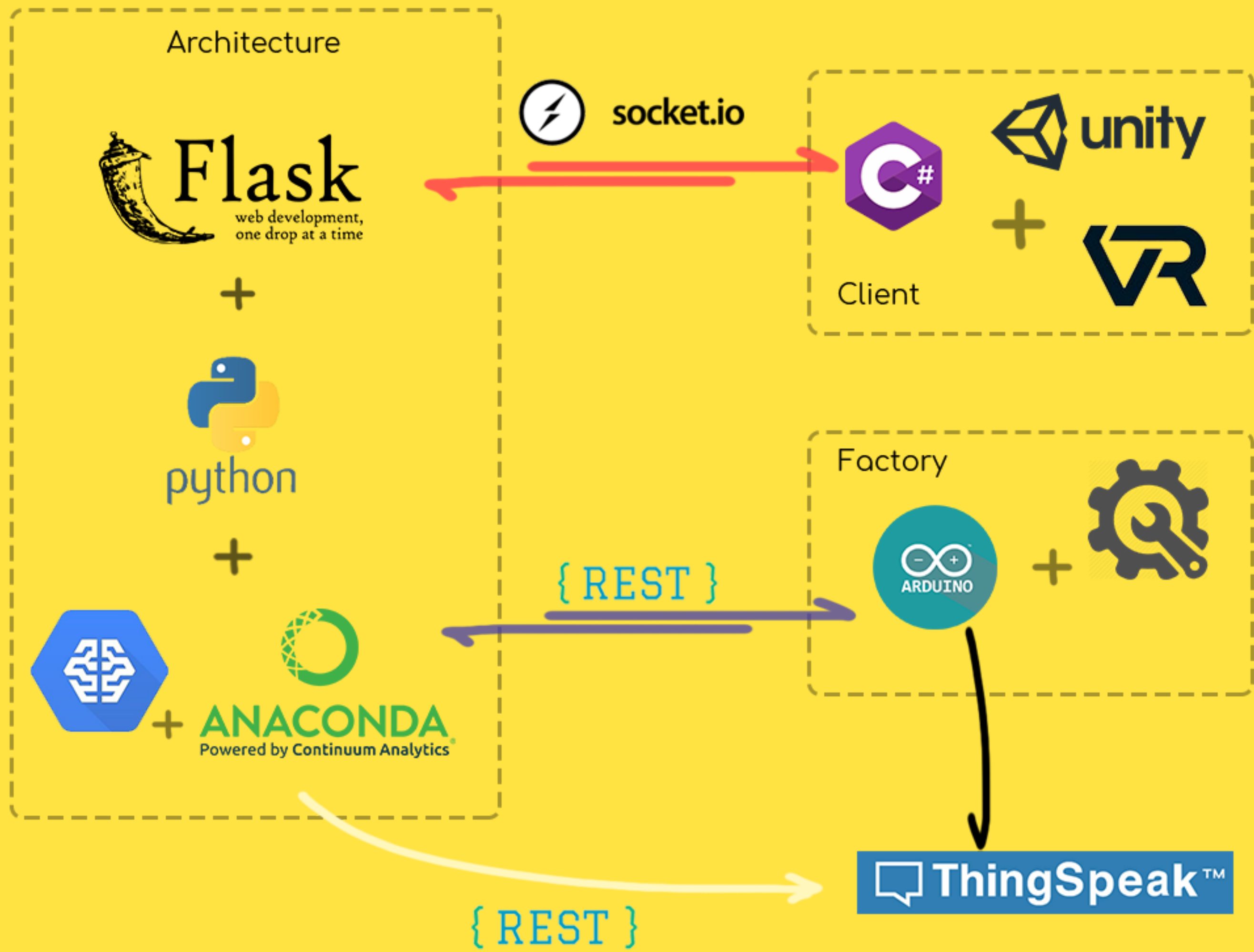
WAIT

What If?

”

BEHIND THE SCENE

realtime Iot remote
intergration & data
visualization



WELL-TRAINED MODEL

91.51311%

Confidence score

Accuracy estimate the
hourly electricity produced by the power
plant (2006-2001)

HEYSEM KAYA, PINAR TÜFEKCI , SADIK FIKRET GÜRGEN: LOCAL AND GLOBAL LEARNING METHODS FOR PREDICTING POWER OF A COMBINED GAS & STEAM TURBINE, PROCEEDINGS OF THE INTERNATIONAL CONFERENCE ON EMERGING TRENDS IN COMPUTER AND ELECTRONICS ENGINEERING ICETCEE 2012, PP. 13-18 (MAR. 2012, DUBAI)

```
In [9]: 1 # Import nessary package
2 # Preparing Data
3 from sklearn import datasets
4 from sklearn.linear_model import LinearRegression
5 import numpy as np
6 import pickle
7
8 f = open("PowerPlant.csv")
9 modelFileName = 'linearRegressionModel.pkl'
10 data = np.loadtxt(f, delimiter=",", skiprows=1)
```

```
In [10]: 1 data.shape
```

```
Out[10]: (9568, 4)
```

```
In [11]: 1 # Input
2 ## Col 1 : Average Temperature (AT)
3 ## Col 2 : Ambient Pressure (AP)
4 ## Col 3 : Related Humudity (RH)
5
6 # Output
7 ## col 4 : PE
8
9 ## Separating Data into training set and validation set
10 training_X = data[:7000,[0,1,2]]
11 training_y = data[:7000,[3]]
12
13 validate_X = data[7001:[0,1,2]]
14 validate_y = data[7001:[3]]
```

```
In [12]: 1 # Train Model
2 reg = LinearRegression().fit(training_X, training_y)
```

```
In [13]: 1 # Test it with validation set
2 reg.score(validate_X, validate_y)
```

```
Out[13]: 0.9151316676247669
```

yassss!

DEMO

Sustain or nope?

HOW FAR

CAN WE GO?