



MACHINE LEARNING **WITHOUT** CODE

@ BARCAMP SAIGON || 2019 – OCT – 06



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AGENDA

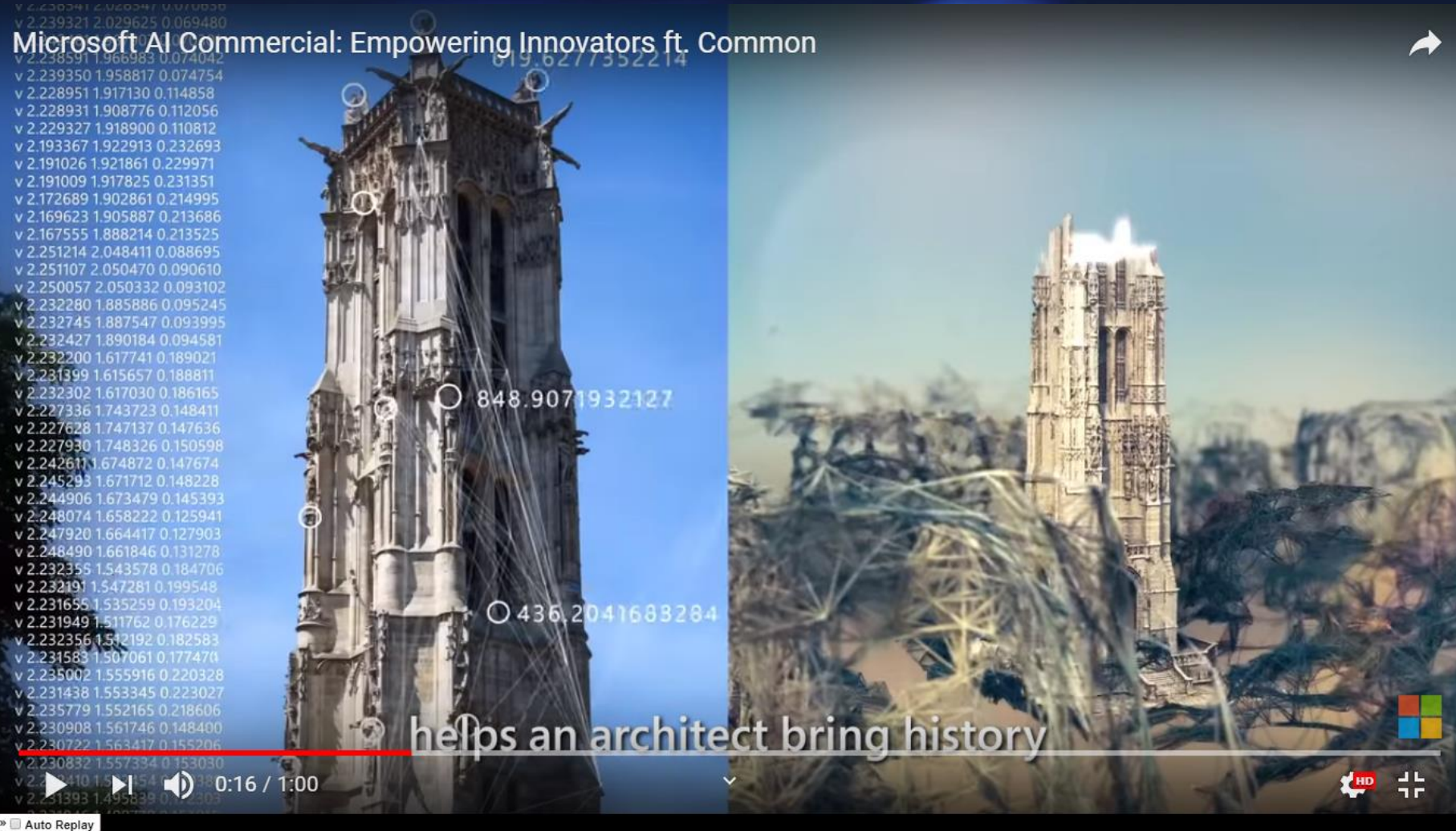
- Machine Learning | Motivation and Constraint
- Data Science Process
- Demo: Azure Machine Learning Studio
- Summary
- Q/A

- WHY WE DO -

- Sales forecasting
- Digitalize document
- Employee daily check-in
- Product recommendation
- Customer classification



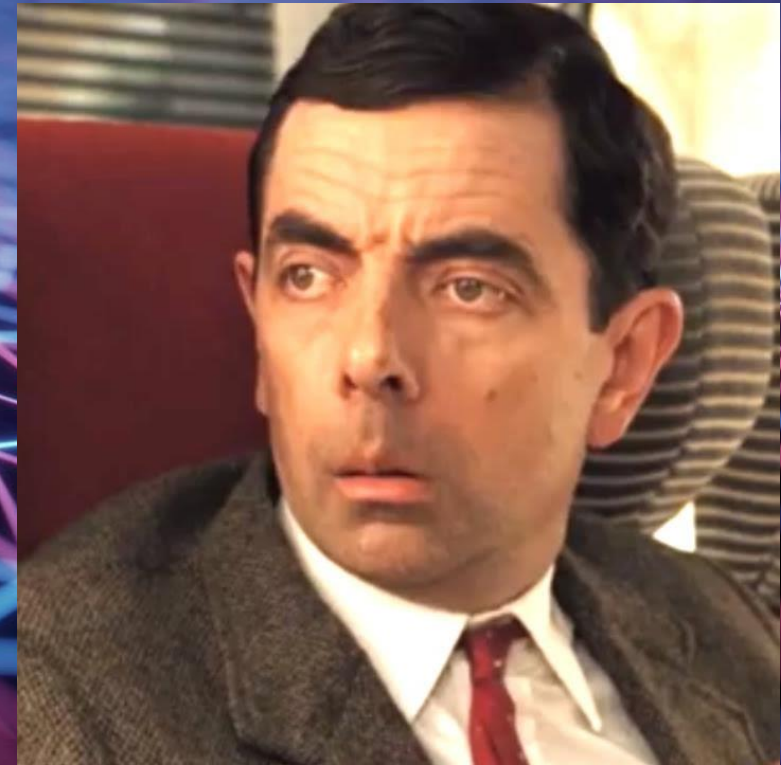
Microsoft AI Commercial: Empowering Innovators ft. Common



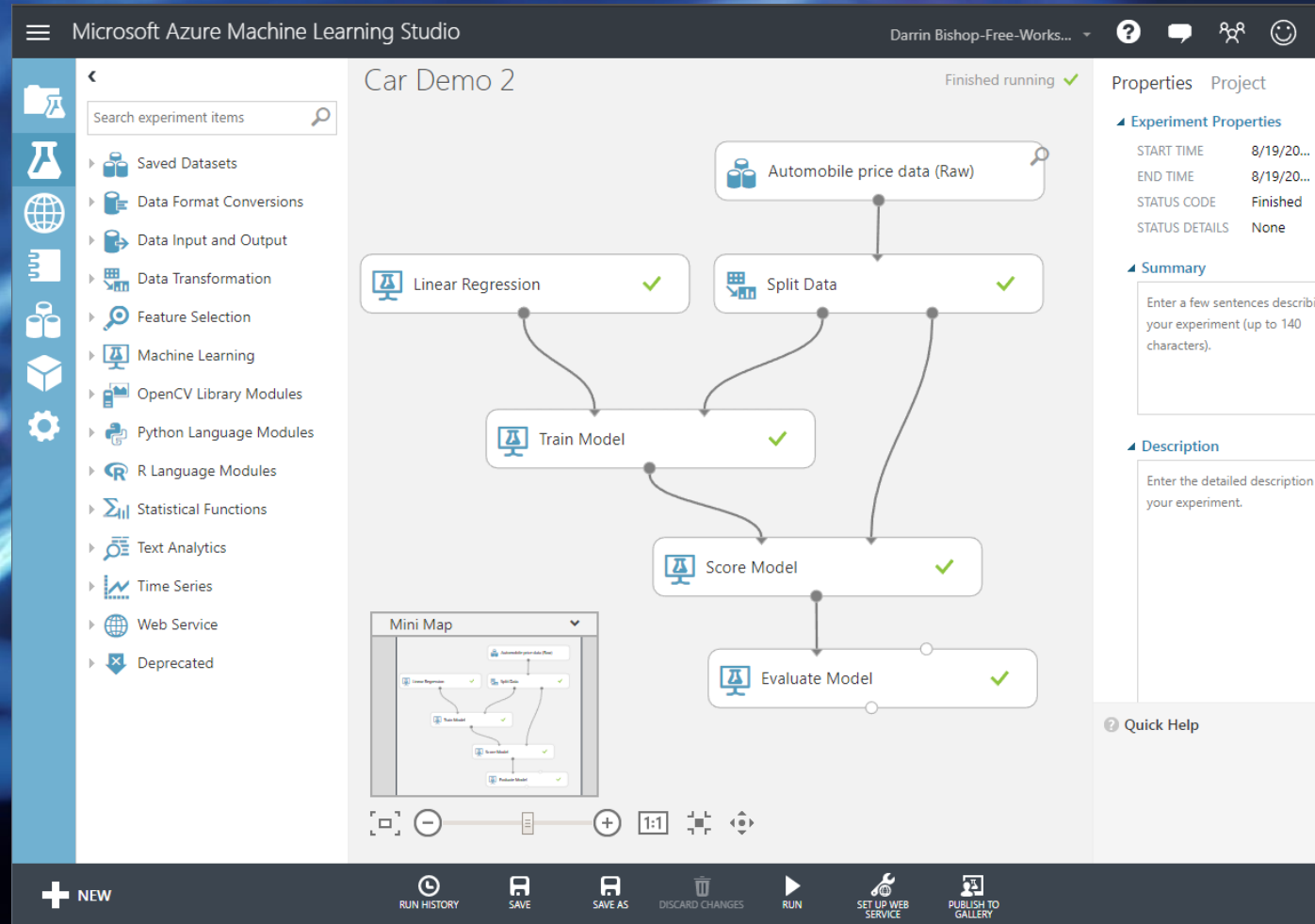
MICROSOFT AI - HOW AI HELP TODAY

- WHY WE DON'T -

- Learning difficulties (R, Python, SAS, Math...)
- Installation difficulties (Anaconda, Packages)
- High-end system requirements
- Time consuming (Busy, workload,...)



AZURE MACHINE LEARNING STUDIO

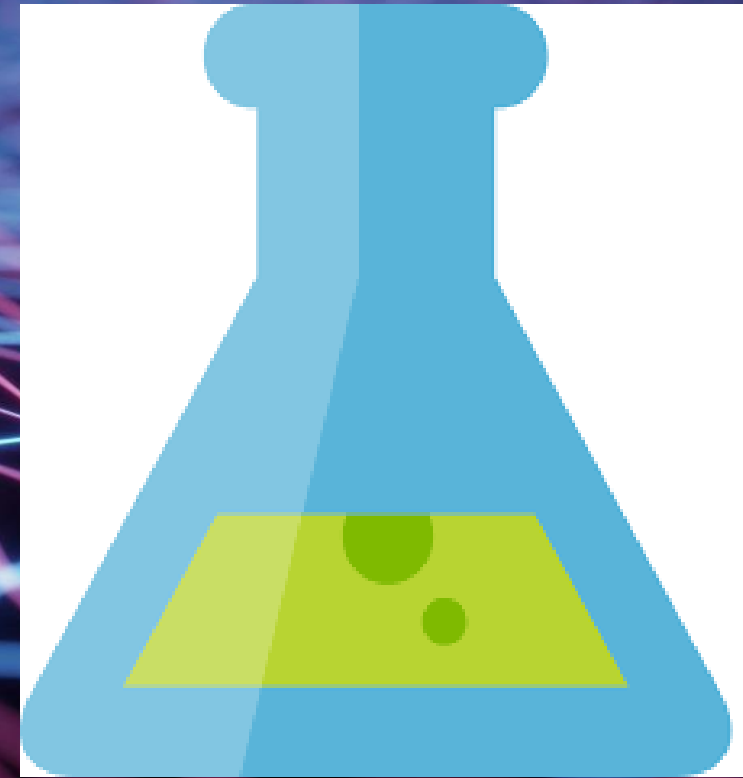


<https://studio.azureml.net/>

AZURE MACHINE LEARNING STUDIO

<https://studio.azureml.net/>

- Free-to-use | Pay-as-you-go
- Easy-to-use (drag-n-drop)
- Fast-development (no code – no bug)
- Increased productivity
- Good for business user with process-minded



DATA SCIENCE PROCESS



OBTAIN



SCRUB



EXPLORE



MODEL



INTERPRET

O

Gather data from relevant sources

S

Clean data to formats that machine understands

E

Find significant patterns and trends using statistical methods

M

Construct models to predict and forecast

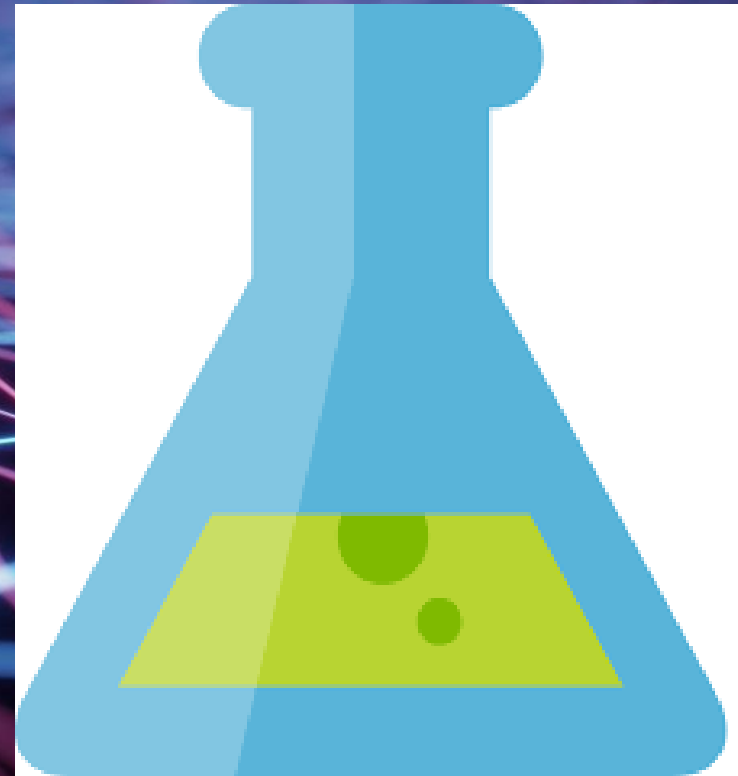
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Put the results into good use

AZURE MACHINE LEARNING STUDIO

<https://studio.azureml.net/>

- Step 1: Import Data
- Step 2: Prepare Data
- Step 3: Choose Algorithm
- Step 4: Train model
- Step 5: Test model
- Step 6: Forecast



DEMO

Boston House Price Forecast – Kaggle Challenge - Azure Machine Learning Studio -

$$\text{MAPE} = \frac{100\%}{N} \sum_{i=1}^N \left| \frac{y_i - \hat{y}_i}{y_i} \right|$$

SUMMARY

- Machine Learning is not too far.
- OSEMN model process.
- Azure Machine Learning Studio.
- Terminologies



MUST-KNOW TERMS

- Supervised | Un-supervised
- Regression | Classification
- Metrics: RMSE | MAE | MSE | R-squared | ...
- Data Preparation
- Model training | validating | forecasting



RESOURCES

- 5 Steps of a Data Science Project Lifecycle – TowardsDataScience
- Visual Studio Dev Essential for free-2-month DataCamp
- Principle of Machine Learning – Edx course - Azure ML Studio
- Kaggle Dataset



THANK
YOU

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