# How to Extend Splunk with an Al Assistant for Pattern Recognition

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# Agenda

- Why are time series data patterns interesting?
- Can pattern recognition be easy?
- What does Splunk + pattern recognition look like?



### **Time Series Data Patterns**

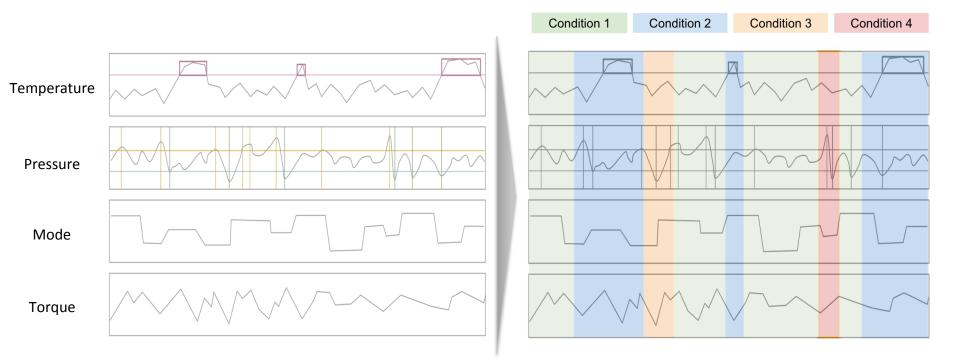
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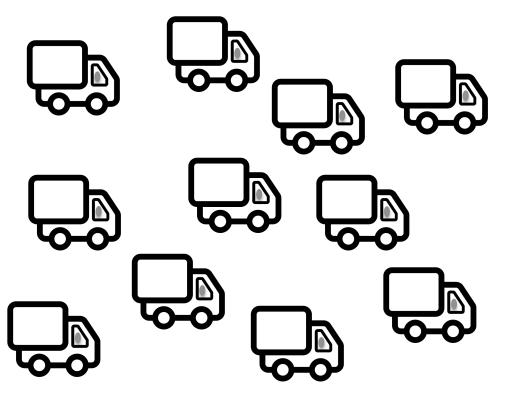
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### From Data to Conditions





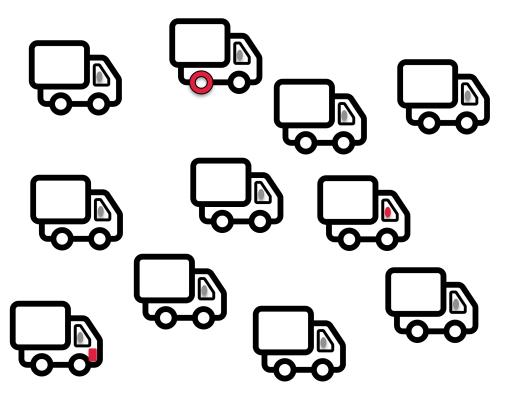
# Fleets



- x,y,z acceleration
- turn angle
- accelerator
- braking
- driver heart rate



# Fleets



#### **Time Series Data**

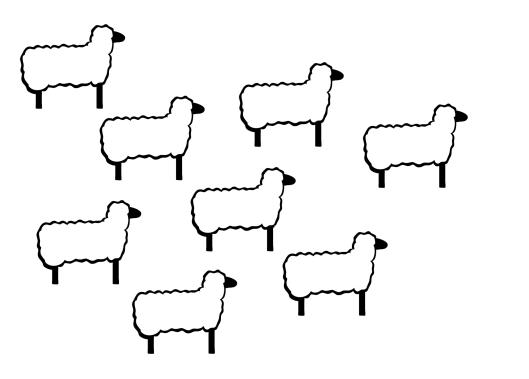
- x,y,z acceleration
- turn angle
- accelerator
- braking
- driver heart rate

#### Conditions

- Impaired driver
- Tire problem
- Engine problem



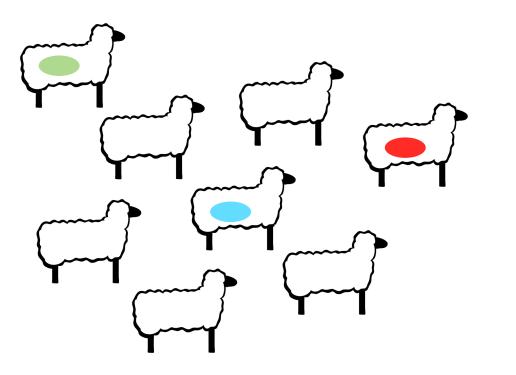
# Livestock



- x,y,z location
- body temperature
- heart rate



# Livestock



#### **Time Series Data**

- x,y,z location
- body temperature
- heart rate

#### Conditions

- illness
- fertility window
- pregnancy

# Machine



- x,y,z acceleration
- rpm
- power
- wind velocity



# Machine



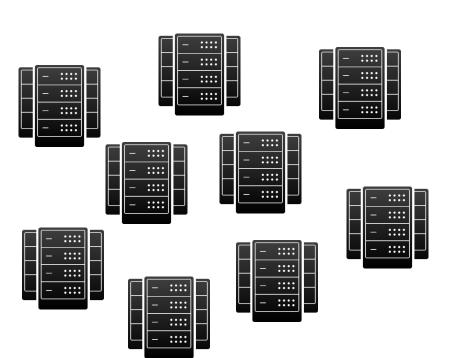
#### **Time Series Data**

- x,y,z acceleration
- rpm
- power
- wind velocity

#### Conditions

- Bearing problem
- Structural problem

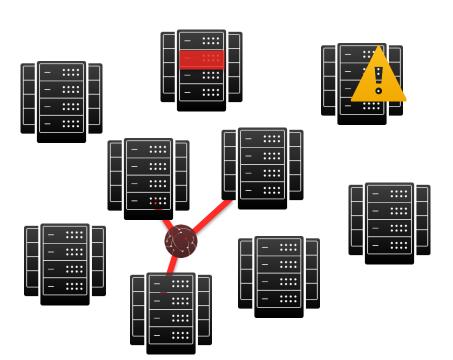
### **Data Centers**



- I/O stats
- temperature
- acoustic data
- activity metrics



### **Data Centers**



#### **Time Series Data**

- I/O stats
- temperature
- acoustic data
- activity metrics

#### Conditions

- Hardware problem
- Network problem
- Upgrade problem

# Users



- logons
- http requests
- building entries
- attachment events



# Users



#### **Time Series Data**

- logons
- http requests
- building entries
- attachment events

#### Conditions

• Threat risk



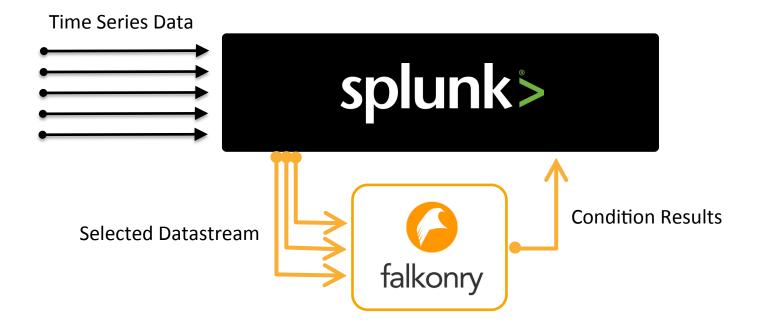
### An Al Assistant for Condition Recognition





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# Falkonry & Splunk



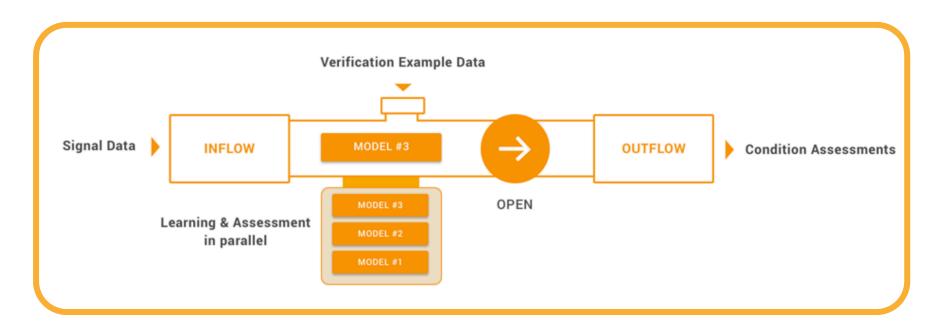


### Inside the Assistant



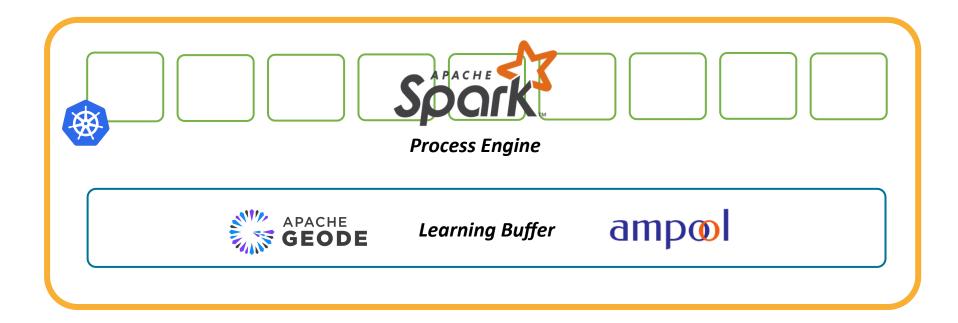


### Inside the Assistant



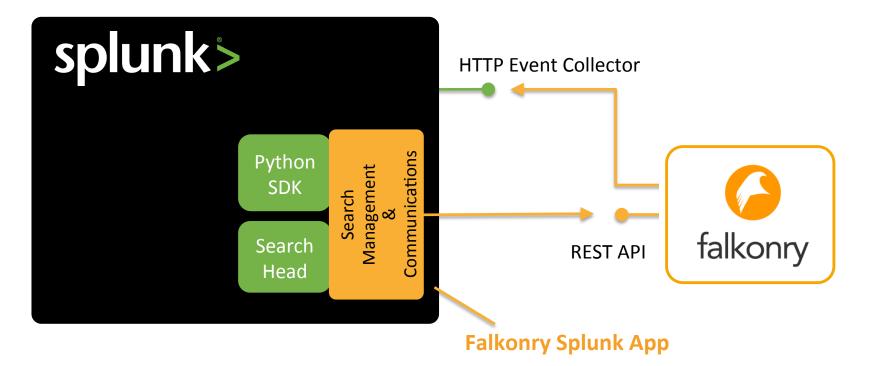


### Inside the Assistant





### **Splunk-Falkonry Connection**





### **Deployment Options**





### A Falkonry-enhanced Splunk Application Demonstration

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# Summary

- Time series pattern recognition is an enormous need
- Adding pattern recognition to Splunk is easy
- Splunk+Falkonry is a great platform for condition-aware applications

# THANK YOU



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