

EXPLORING AND VISUALISING DATA WITH ELASTICSEARCH FOR DATA SCIENTISTS

@EMANUIL_TOLEV



elastic

COMMUNITY ENGINEER



Elasticsearch

Elasticsearch is a distributed, JSON-based search and analytics engine.

[Learn more](#)



Kibana

Kibana is the window into the Elastic Stack. Explore your data and manage the stack.

[Learn more](#)



Beats

Beats is a platform for lightweight shippers that send data from edge machines.

[Learn more](#)



Logstash

Logstash is a dynamic data collection pipeline with an extensible plugin ecosystem.

[Learn more](#)

**ELASTICSEARCH BREAKS YOUR DATA UP
IN PIECES AND PUTS THE PIECES INTO
BASKETS**

**IT SCALES HORIZONTALLY – CAN EASILY
ADD MORE BASKETS**

USE IN PRODUCTION

- SEARCH (ONLINE SHOPS, ADMIN TOOLING, RECOMMENDER SYSTEMS, ...)
 - ANALYTICS (BUSINESS METRICS)
 - WEB APP MONITORING: 'LOGGING, METRICS, TRACES'
 - INTERACTIVE DASHBOARDING
- UNSUPERVISED LEARNING FOR ANOMALY DETECTION (PAID! AND VERY GOOD)
 - NOW SECURITY TOO

FOR DATA SCIENCE?

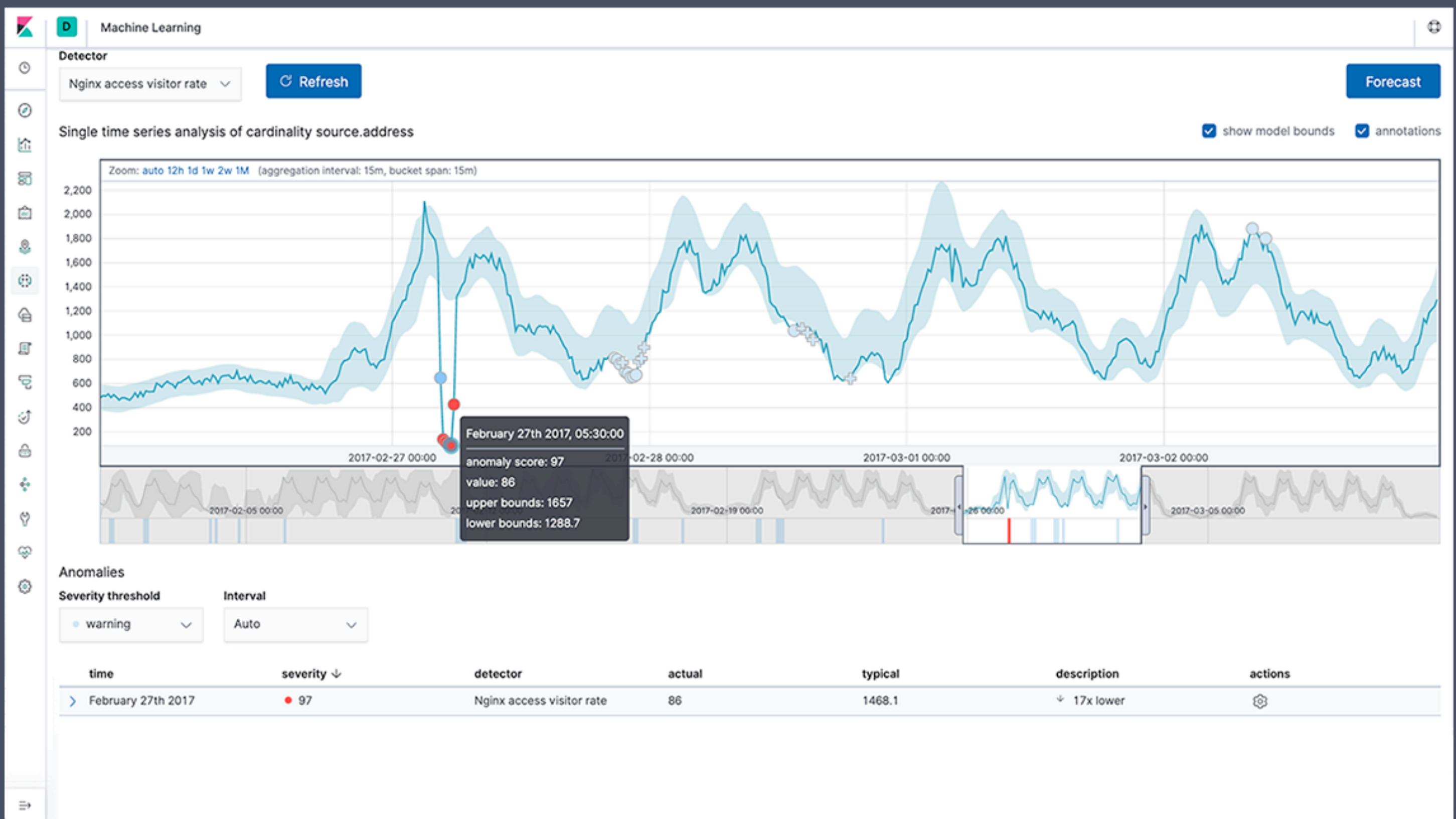
- OFTEN: YOUR DATA IS ALREADY IN ELASTICSEARCH. NOW WHAT?
 - EXPLORATION PHASE OF A PROJECT
 - CONVENIENT VISUALISATION OF ANALYSIS RESULTS

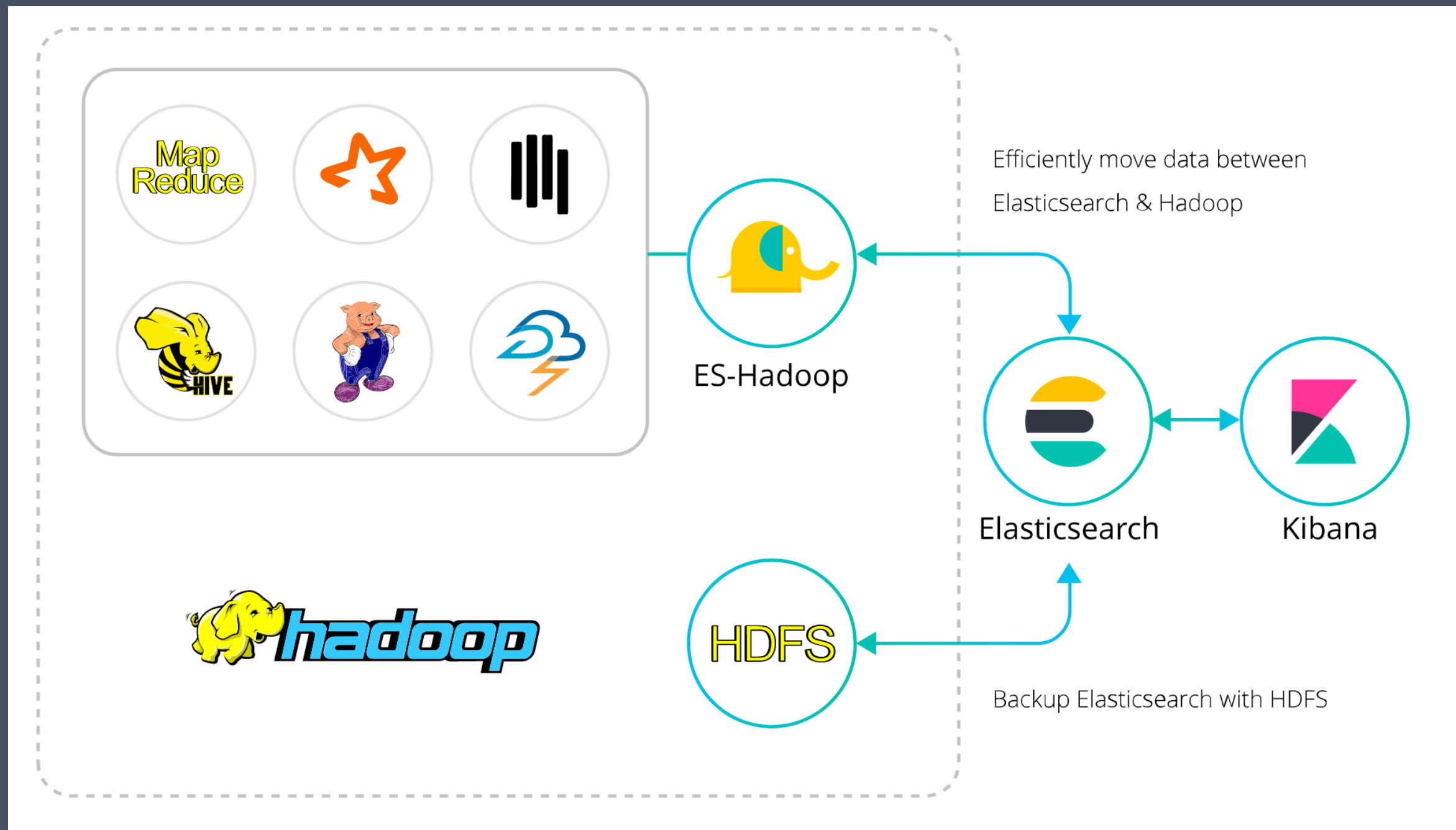
TODAY: ALL THAT + GETTING DATA IN AND OUT

DEMO TIME!

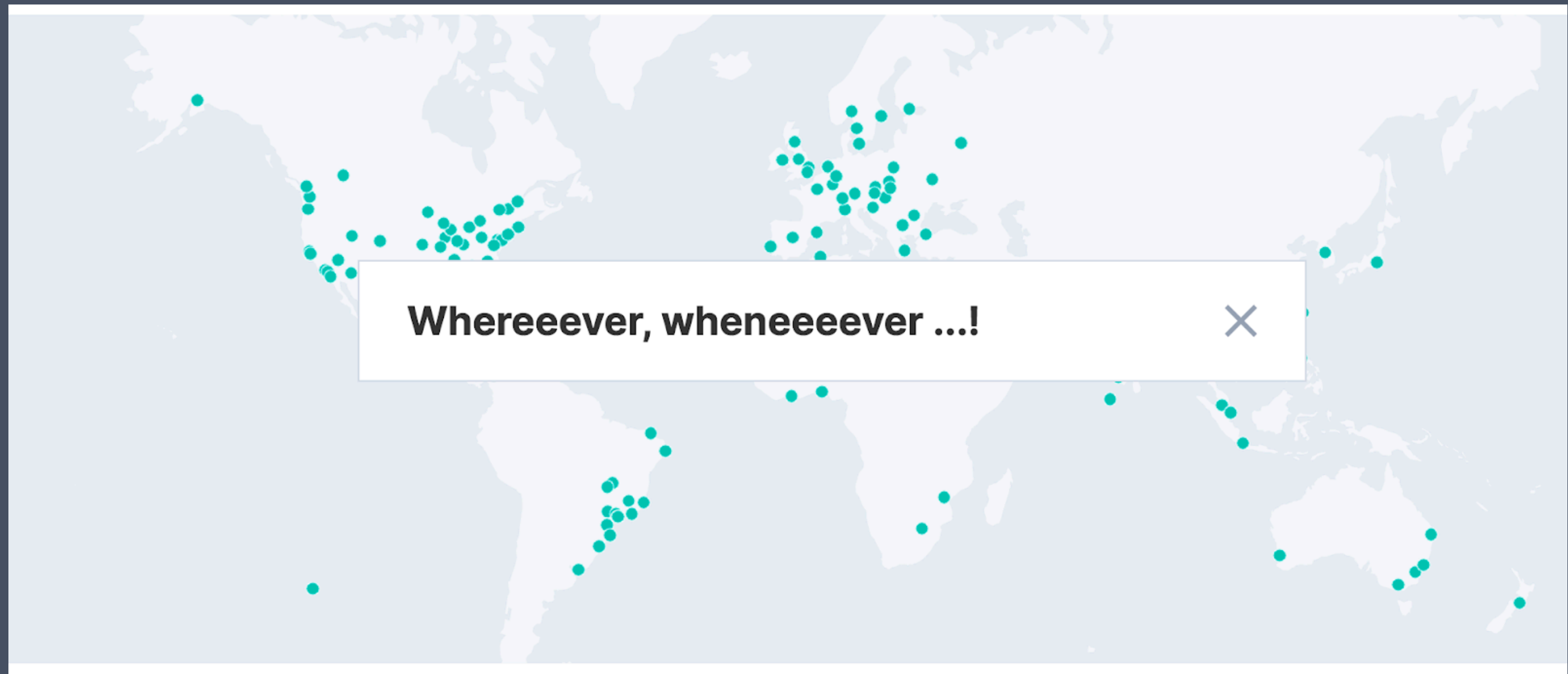
UNSUPERVISED OUTLIER DETECTION AND CLASSIFICATION

[HTTPS://WWW.ELASTIC.CO/WHAT-IS/ELASTICSEARCH-MACHINE-LEARNING](https://www.elastic.co/what-is/elasticsearch-machine-learning)





[HTTPS://WWW.ELASTIC.CO/WHAT-IS/ELASTICSEARCH-HADOOP](https://www.elastic.co/what-is/elasticsearch-hadoop)



[HTTPS://COMMUNITY.ELASTIC.CO](https://community.elastic.co)

LINKS

- JUPYTER NOTEBOOK, GEOJSON FILES AND AIRBNB LISTINGS CSV WITH INSTRUCTIONS: [HTTPS://GITHUB.COM/EMANUIL-TOLEV/DATA-SCIENCE-ELASTIC-STACK-INTRO-TALK](https://github.com/emanuil-tolev/data-science-elastic-stack-intro-talk)
- UNSUPERVISED AND SUPERVISED MACHINE LEARNING WITH THE ELASTIC STACK: [HTTPS://WWW.ELASTIC.CO/WHAT-IS/ELASTICSEARCH-MACHINE-LEARNING](https://www.elastic.co/what-is/elasticsearch-machine-learning)
- ELASTICSEARCH – HADOOP CONNECTOR: [HTTPS://WWW.ELASTIC.CO/WHAT-IS/ELASTICSEARCH-HADOOP](https://www.elastic.co/what-is/elasticsearch-hadoop)
- ELASTIC COMMUNITY (INCL. SLACK GROUP, FORUMS, MEETUPS): [HTTPS://COMMUNITY.ELASTIC.CO](https://community.elastic.co)

QUESTIONS?

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