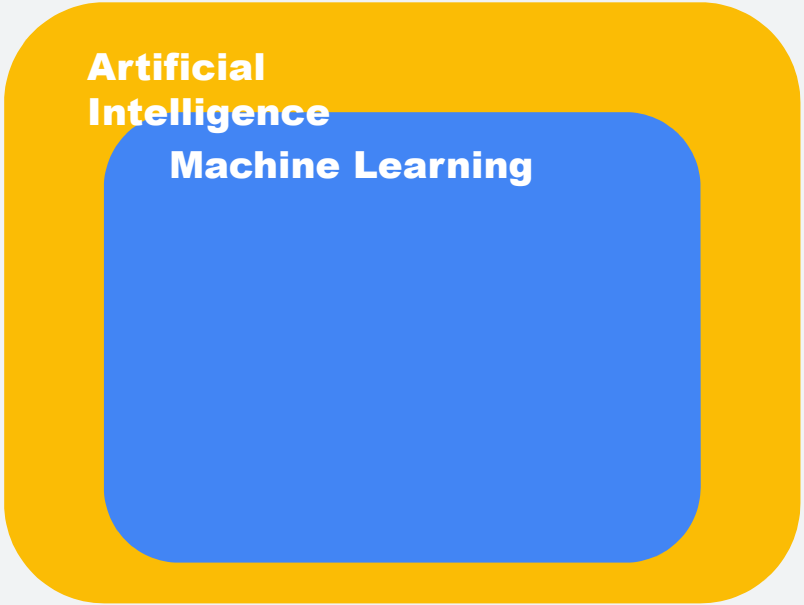
What is (tiny) Machine Learning?

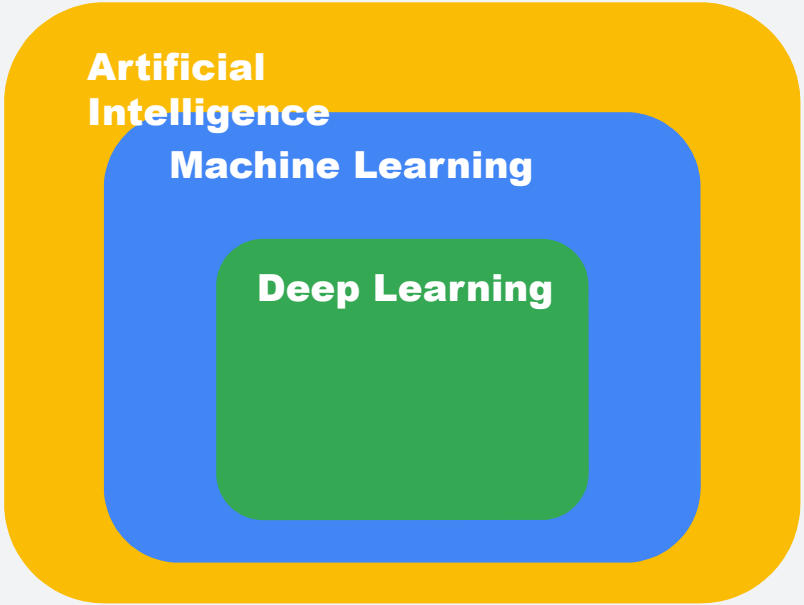
What is Machine Learning?

1. **Machine Learning** is a subfield of **Artificial Intelligence** focused on developing algorithms that learn to **solve problems by analyzing data for patterns**



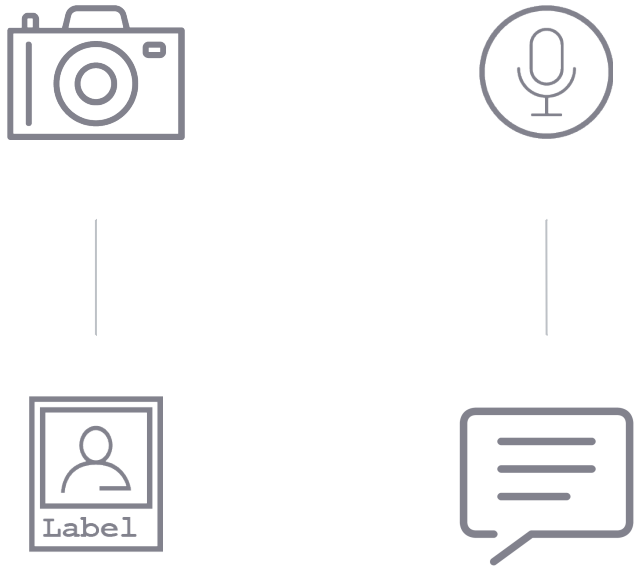
What is (Deep) Machine Learning?

1. Machine Learning is a subfield of Artificial Intelligence focused on developing algorithms that learn to solve problems by analyzing data for patterns
2. **Deep Learning** is a type of Machine Learning that leverages **Neural Networks** and **Big Data**



Applications of Machine Learning

Applications of Machine Learning



Applications of Machine Learning

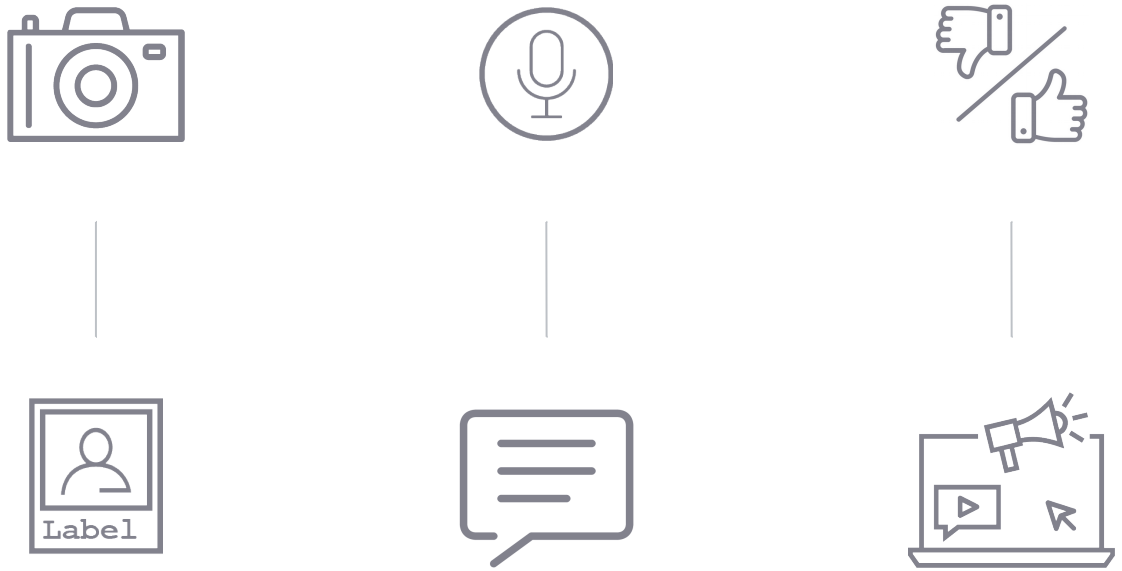
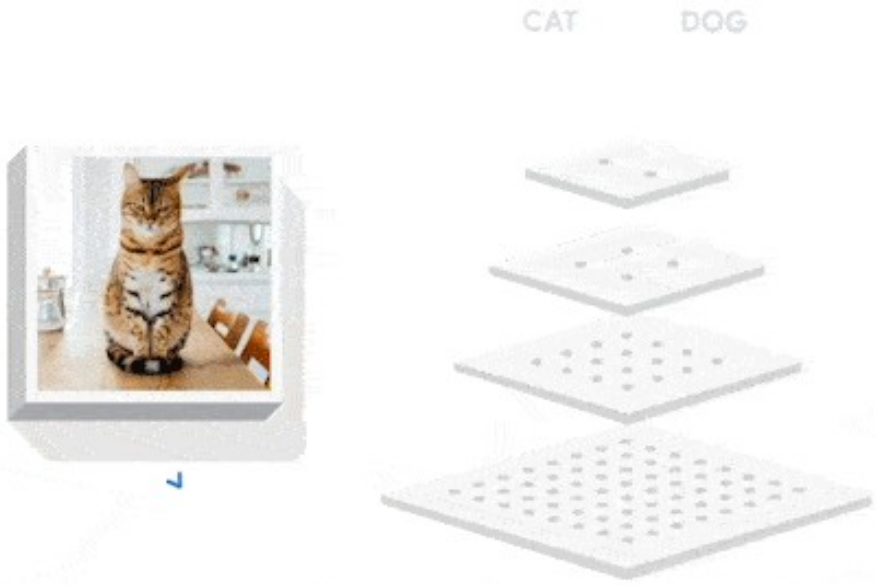
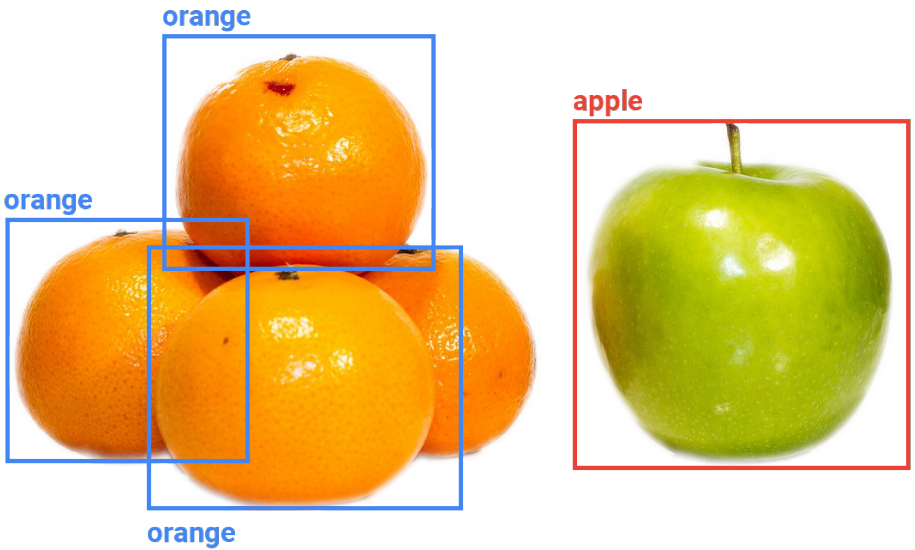


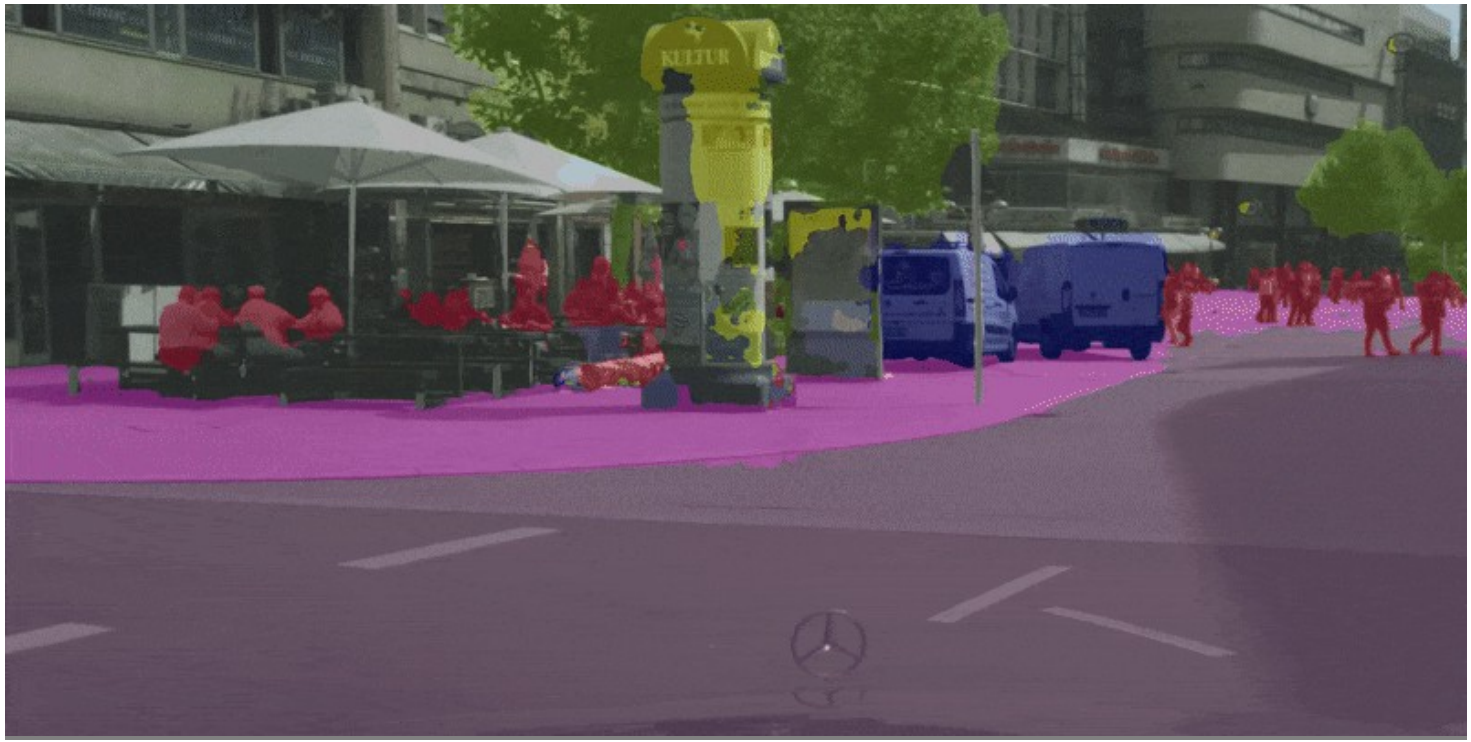
Image Classification



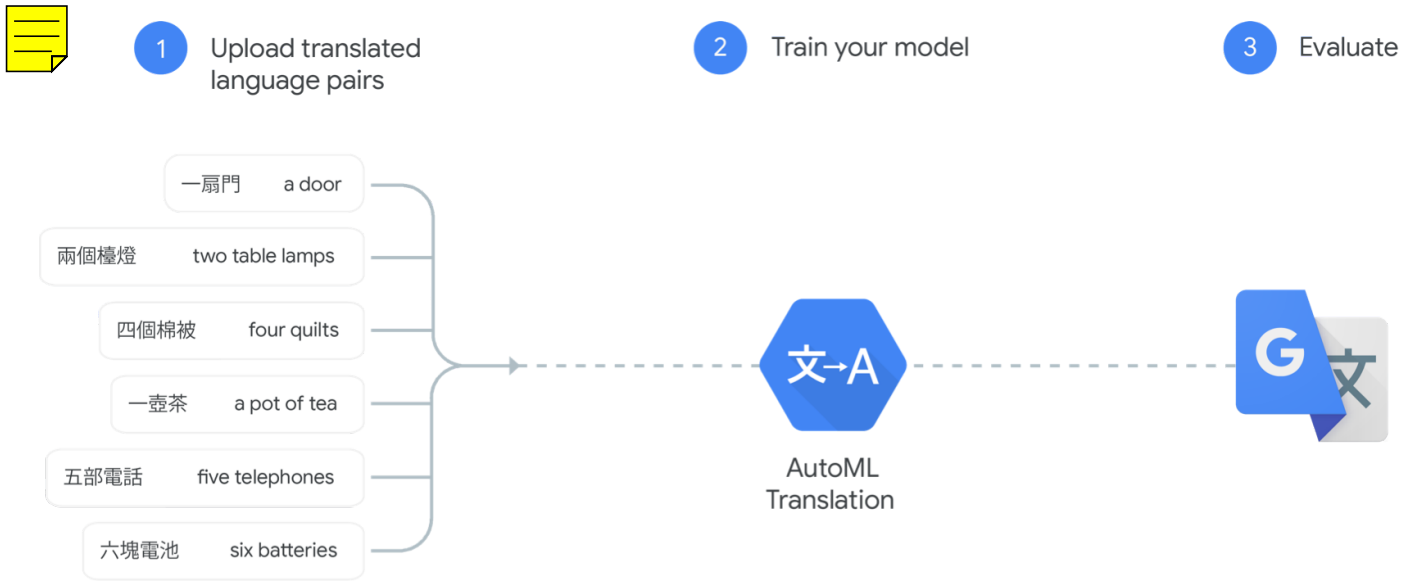
Object Detection



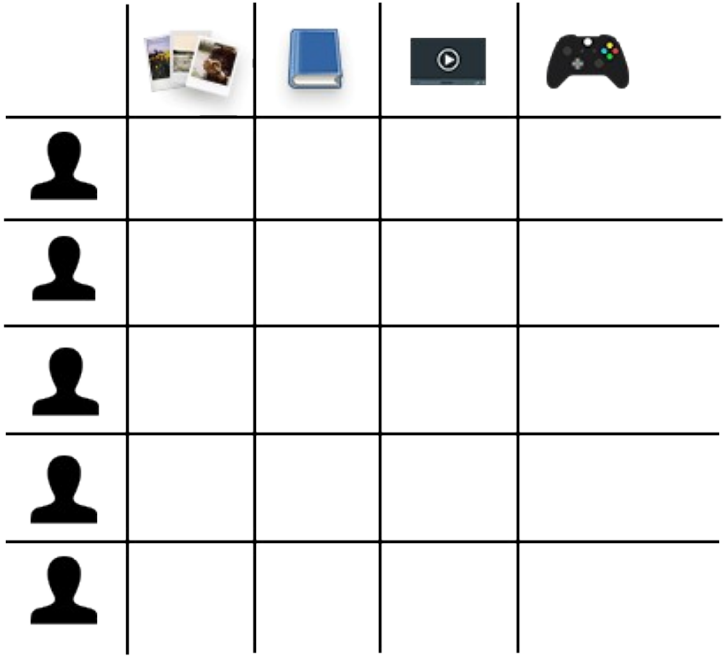
Segmentation



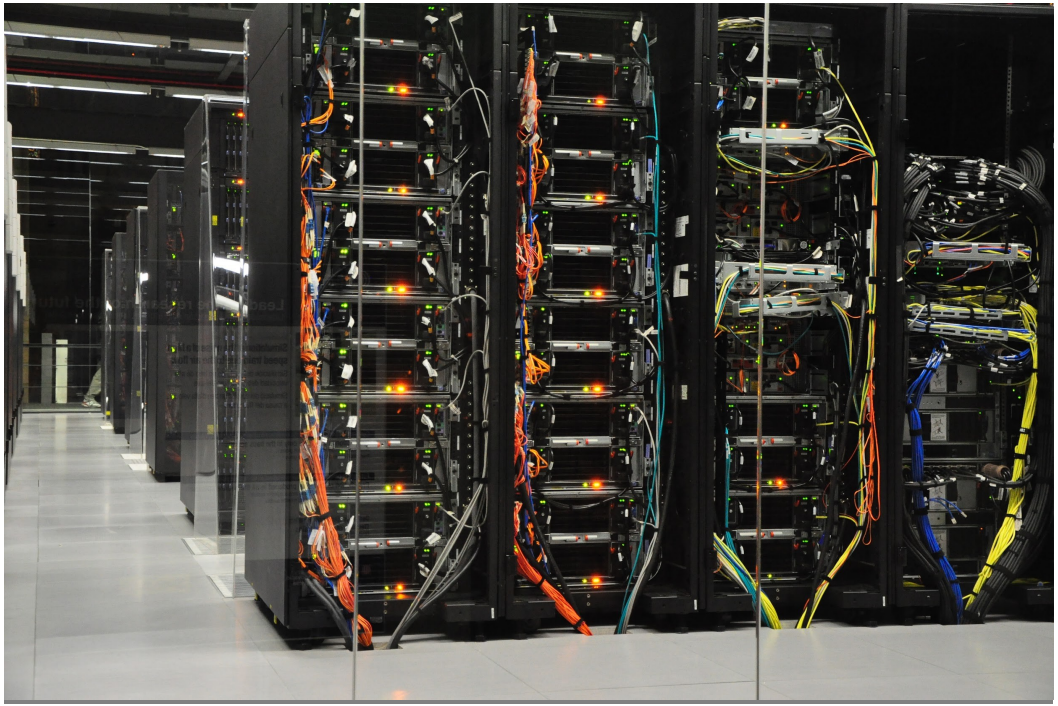
Machine Translation



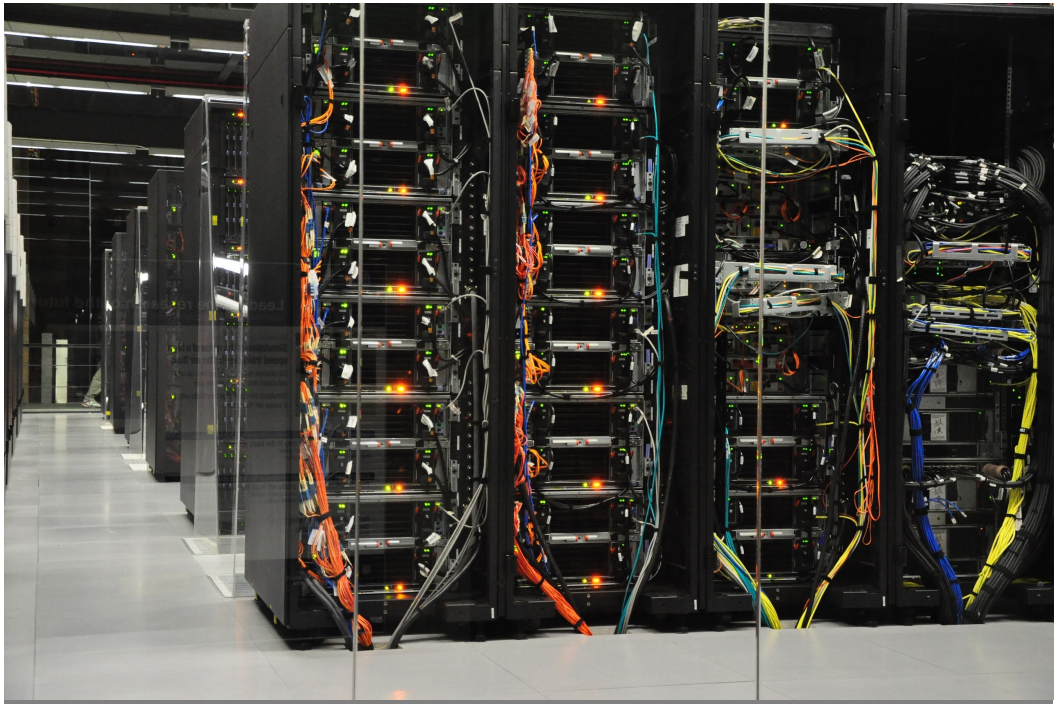
Recommendations



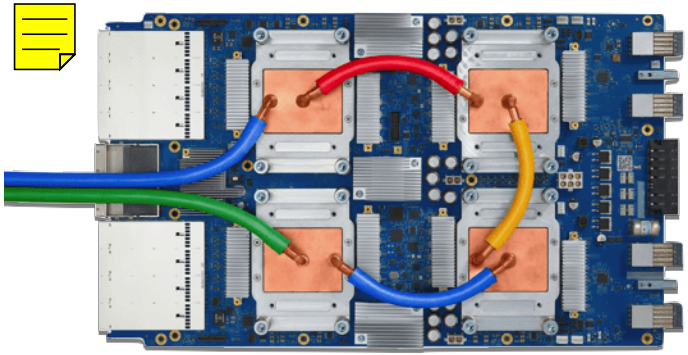
Datacenter



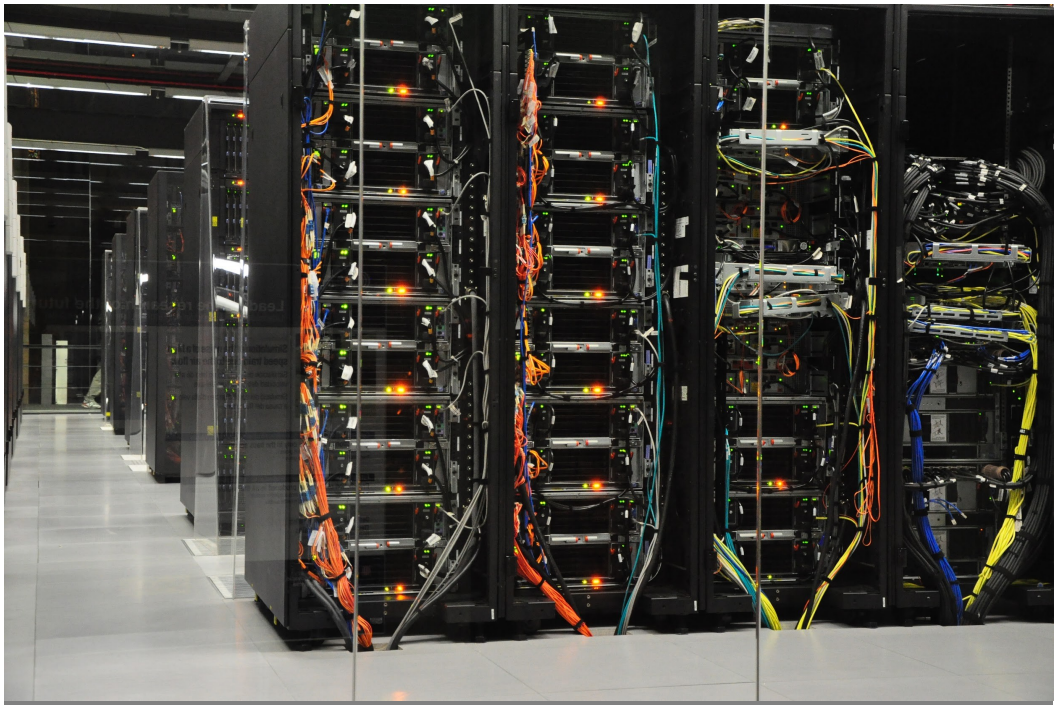
Datacenter

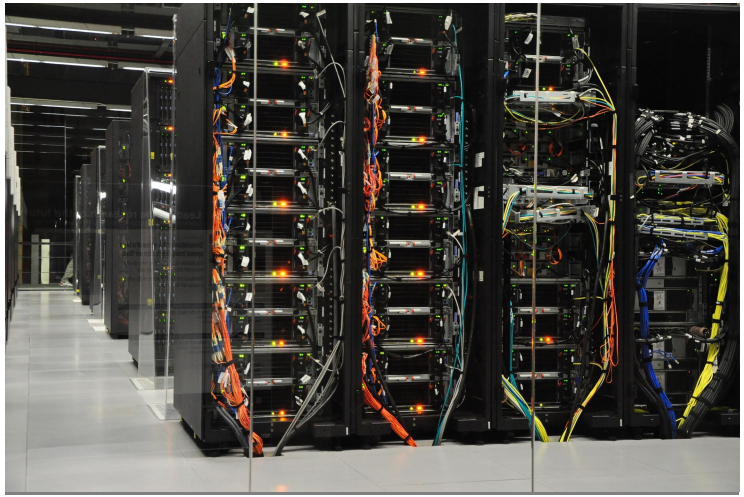


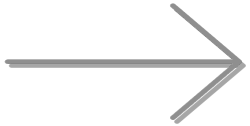
TPUs/GPUs



Bigger Is Not Always Better.

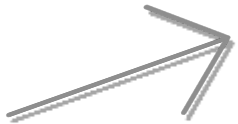


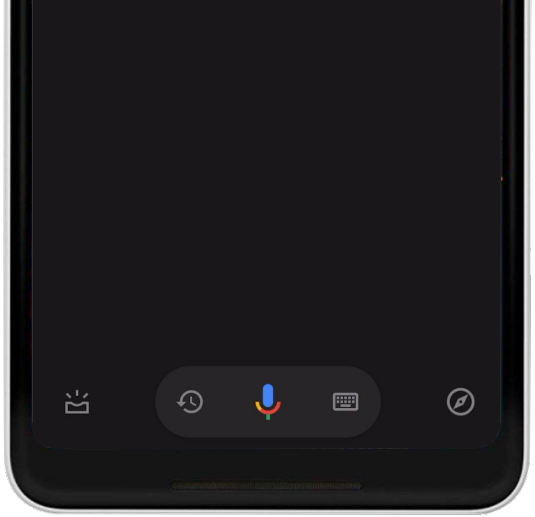




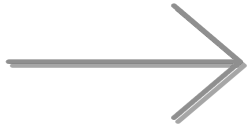

8:00
Dinner with Layla in 30 min
8:30 - 10:00 pm | 50°F

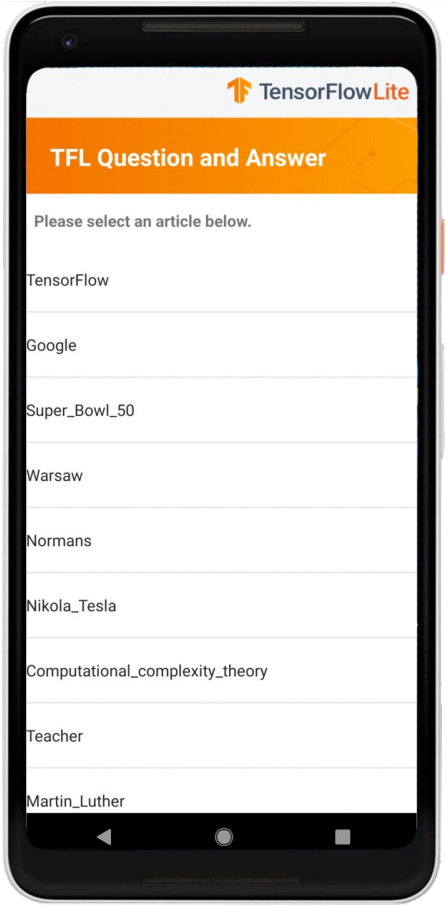

Dinner with Layla in 30 min
8:30 - 10:00 pm
50°F






Dinner with Layla in 30 min
8:30 - 10:00 pm | 50°F

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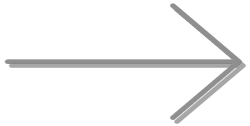
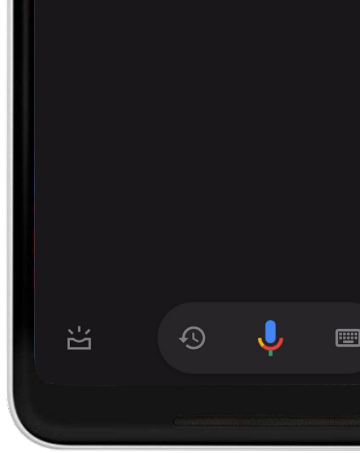
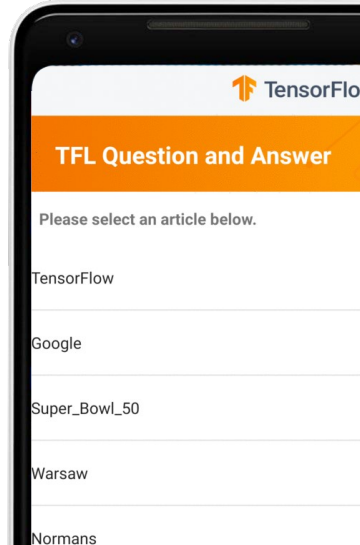
Martin_Luther



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TFL Question and Answer
Please select an article below.
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Google
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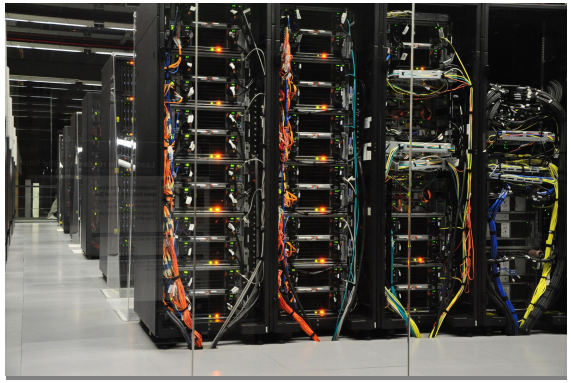
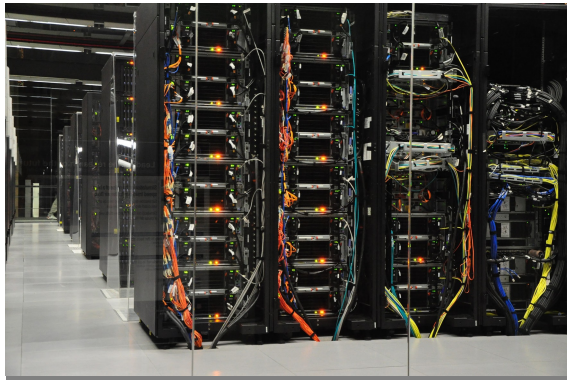
Warsaw
Normans

Why?



High power

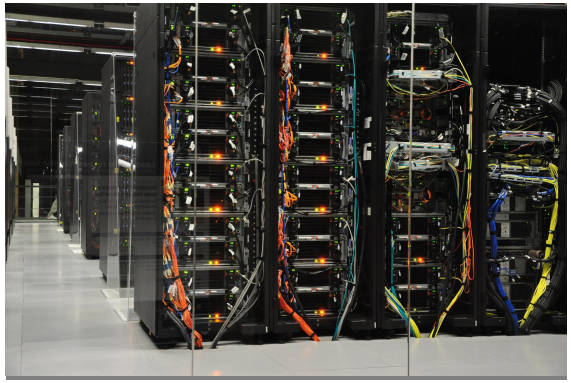
Why?



High power

Low power

Why?

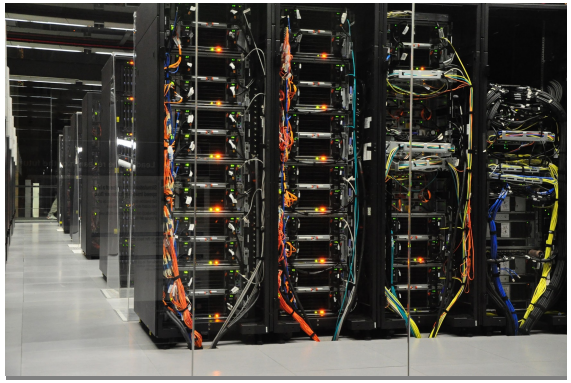


High power

High bandwidth

Low power

Why?



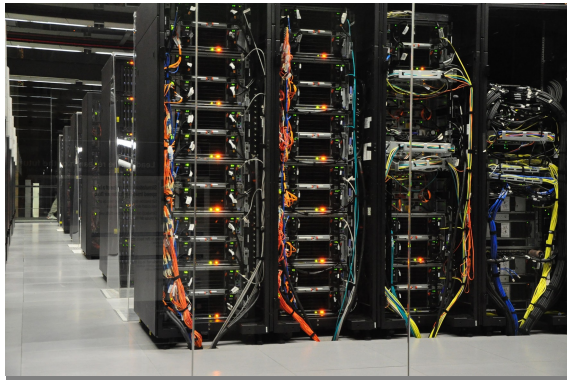
High power

High bandwidth

Low power

Low bandwidth

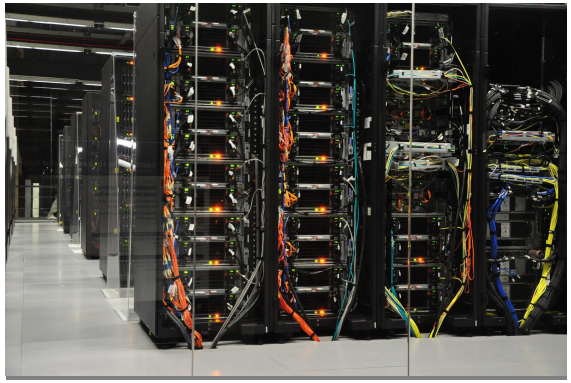
Why?



High power
High bandwidth
High latency

Low power
Low bandwidth

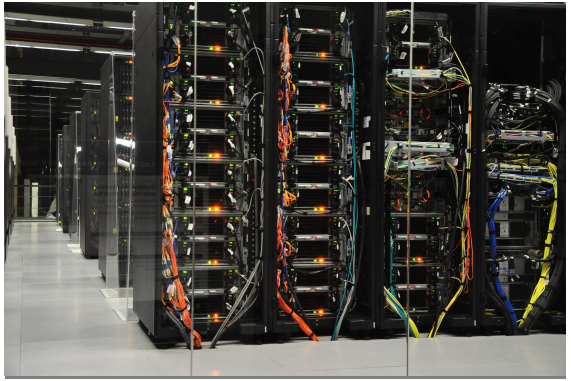
Why?

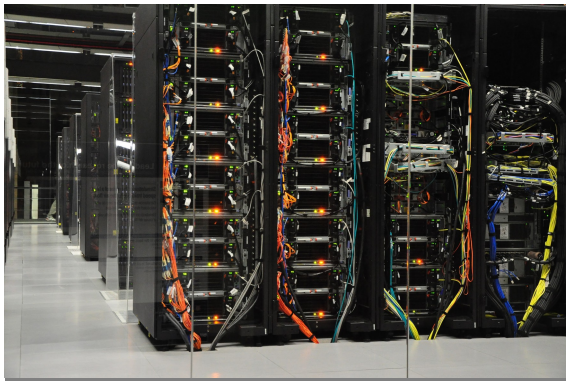


High power
High bandwidth
High latency

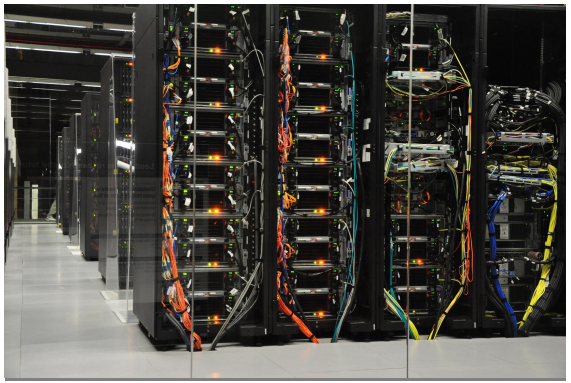
Low power
Low bandwidth
Low latency


Dinner with Layla in 30 min
ALWAYS
ON?






Dinner with Layla in 30 min




Dinner with Layla in 30 min


Google
Assistant

Endpoint Devices

Google
Assistant

Endpoint Devices

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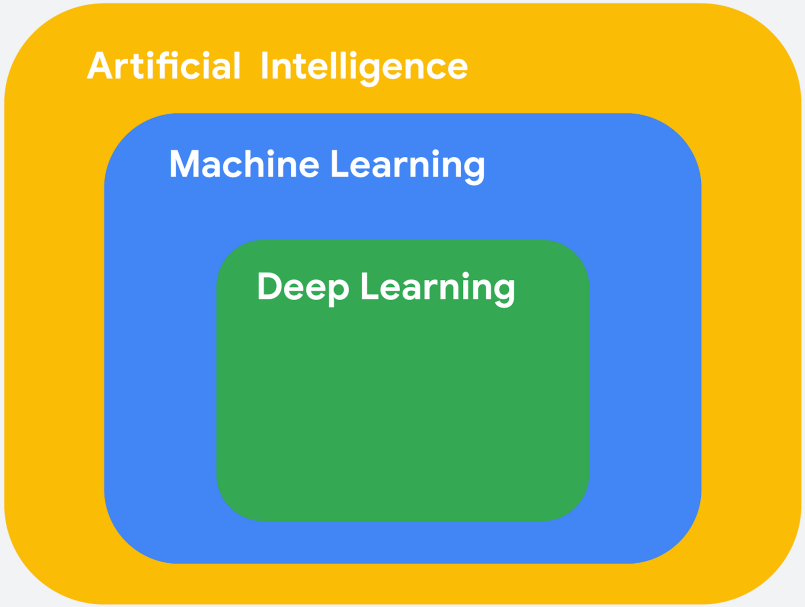

No Good Data Left Behind

5 Quintillion

bytes of data produced every day by IoT

<1%

of unstructured data is analyzed or used at all

Source: Harvard Business Review, What's Your Data Strategy?, April 18, 2017
Cisco,
Internet of Things (IoT) Data Continues to Explode Exponentially. Who Is Using That Data and How?

Summary

- ML has several diverse applications in the real-world
- ML is increasingly moving from the cloud to endpoint devices
- Endpoint devices are everywhere around us

Half-screen. Show presenter.

Fullscreen. Show presenter.