



Artificial Intelligence: The API Way

***A fast introduction...
or no game demo at the end!***



Hello!

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**For how long will we be able to avoid APIs?
Who does still develop in "pure" CUDA?**

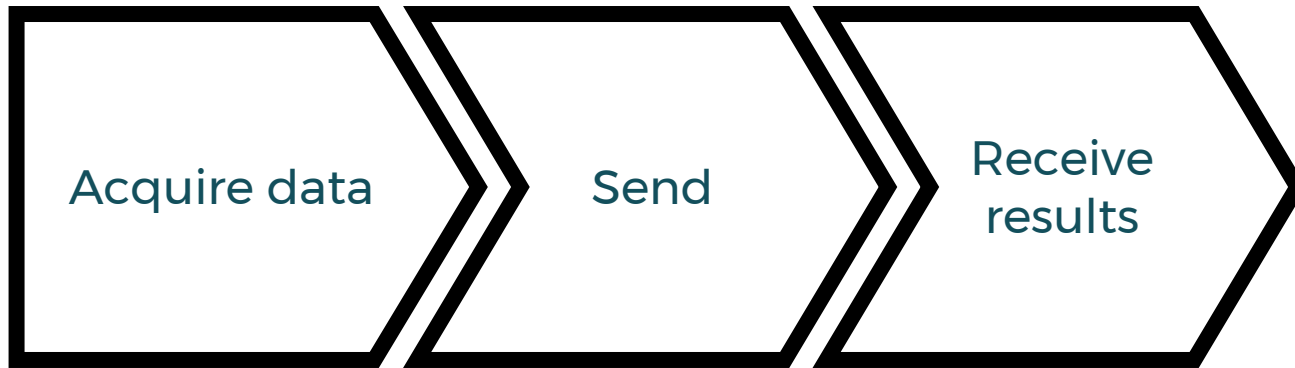
Remember to google for "RapidAPI"...

<http://dilbert.com/strip/2013-10-12>

REST API

Treats each request as an independent transaction (stateless).

Using **HTTP**, as is most common, the kind of operations available include those predefined by the **HTTP verbs** GET, POST, PUT, DELETE and so on



Examples of ML with API (REST) available today

- **IBM Watson**
- **Google Cloud Machine Learning**
- **MS Cognitive Services**
- **Amazon Alexa**
- **BigML**

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Watson sees...



Missed faces

[JSON](#)

Classes	Score
crowd	0.99
Type Hierarchy	
/people/crowd	

[JSON](#)

Faces	Score
age 18 - 24	0.39
female	0.00
age - 17	0.41

Faces

Labels

Text

Colors

Safe Search

JSON Response



DSC_4137.jpg

People

89%

Youth

75%

Face 2

Joy	■ ■ ■ ■ ■	Very Likely
Sorrow	■	Very Unlikely
Anger	■	Very Unlikely
Surprise	■	Very Unlikely
Exposed	■	Very Unlikely
Blurred	■	Very Unlikely
Headwear	■	Very Unlikely

Roll: -7° Tilt: -3° Pan: -33°

Confidence 95%

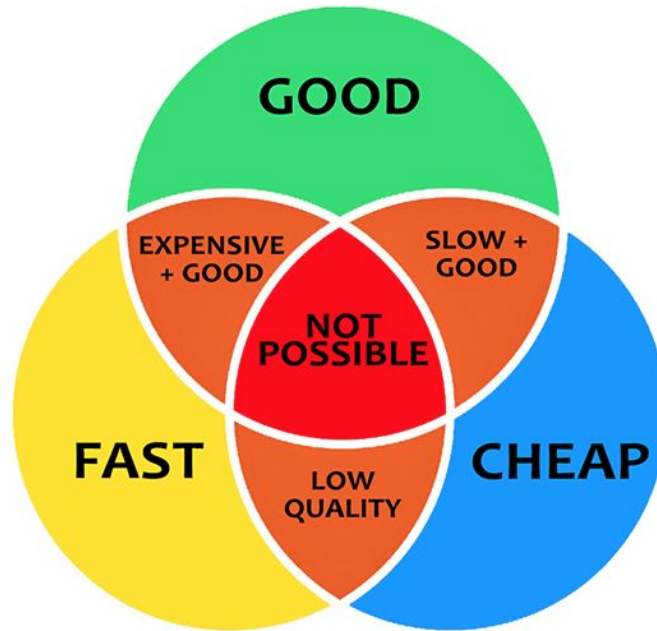
Face 3

MS Cognitive Services

- Language (more cool stuff)
- Speech (speaker identification, translation voice based)
- Vision (emotions, identification, video...)
- Azure (R, Python, etc)

<https://www.microsoft.com/cognitive-services>





In the worst scenario, those systems could generate training data.

Now, smile!

It's ~~game~~ demo time!

Available at:

github.com/ricardodeazambuja/Simon-Says-Game---Emotions-API

github.com/ricardodeazambuja/Hackathon-Plymouth-2017

AVAILABLE EMOTIONS:

**Sadness, Neutral, Contempt, Disgust, Anger,
Surprise, Fear and Happiness**