How to win the Microsoft Azure API prize

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aka.ms/HackTheNorth2018

Microsoft is one of many companies offering an API Prize

Xbox One S Minecraft Bundle (1TB)

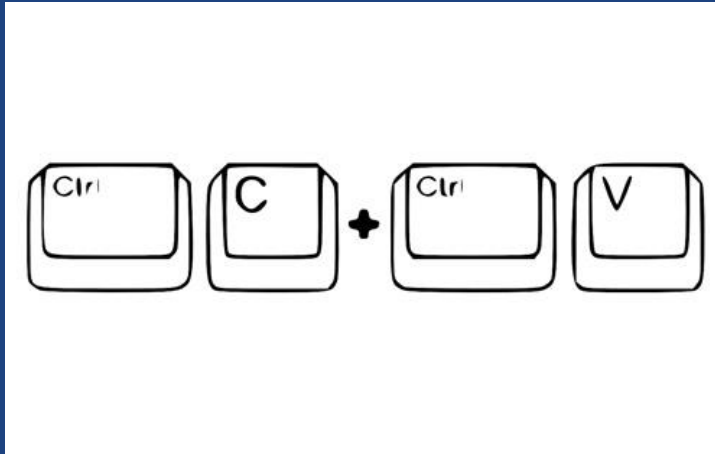You came all this way, why not try to take home a prize!

You only have 33 hours, you don't have time to build everything from scratch

Build something really cool really fast

These are a few of my favorite things…

Here's a few of my favorite places to find them
- Cognitive Services
- Machine Learning Studio
- Bot Framework

Cognitive Services

Don't reinvent the wheel

In addition to the usual Virtual Machines, web hosting, etc…

Microsoft Azure offers entire suites of intelligent services
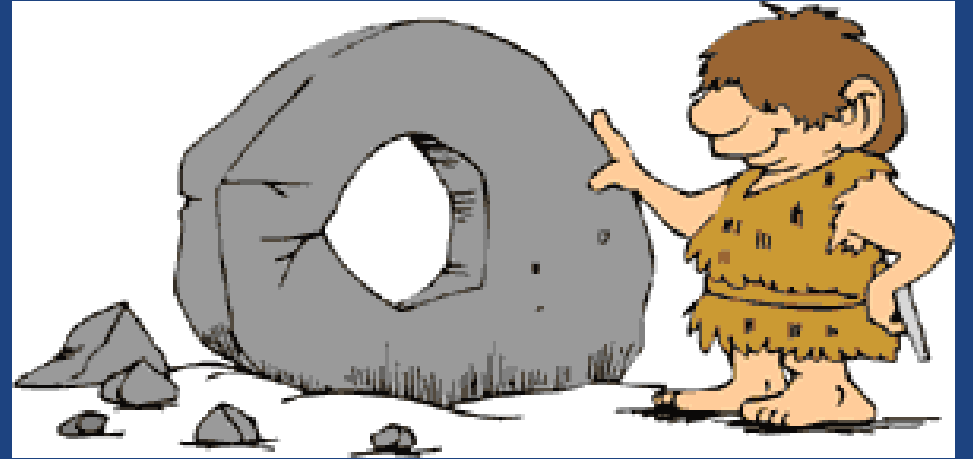
Azure Cognitive Services

Image Analysis

A P I

Computer Vision API (Identify image content)
Moderate content (identify adult, racy content)
Face API (Detect, identify, analyze faces)
Emotion API (emotion recognition)
Read printed text
Read handwritten text
Recognize celebrities and landmarks
Generate Thumbnail images
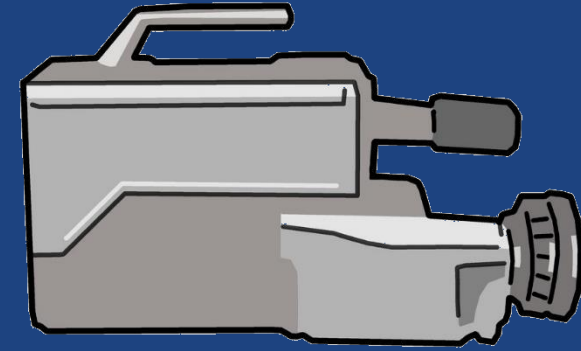Step by Step Tutorial on Computer Vision API and Thumbnail images

Image Analysis

Custom Vision Service

Trains models to classify domain specific images

- Step by Step Tutorial

Video Analysis

Video indexer (sample)

Audio transcript	Face detection	Speaker indexing
Visual Text recognition	Face identification	Voice activity detection
Scene detection	Sentiment analysis	Translation
Content moderation	Key word extraction	Key frame extraction

Speech

Translator Speech API

- Text or Speech (try it yourself in PowerPoint)
- Text to speech/Speech to text
- Up to 60 Supported languages
- Speaker Recognition
- Custom Speech Service for learning domain specific language

API

Afrikaans	Arabic*	Bagla	Bosnian	Cantonese	Catalan	Chinese (simp)	Chinese (trad.)	Croatian	Czech
Danish	Dutch	English*	Estonian	Fijian	Filipino	Finnish	French*	German*	Greek
Haitian Creole	Hebrew	Hindi	Hmong Daw	Hungarian	Indonesian	Italian*	Japanese*	Kiswahili	Klingon
Korean	Latvia	Lithuanian	Malagasy	Malay	Maltese	Norwegian	Persian	Polish	Portuguese*
Queretaro Otomi	Romanian	Russian*	Samoan	Serbian (Cyr.)	Serbian (Lat.)	Slovak	Slovenian	Spanish*	Swedish
Tahitian	Tamil	Thai	Tongan	Turkish	Ukranian	Urdu	Vietnamese	Welsh	Yucatec Maya

Knowledge

Recommendations Solution
- Those who bought this also bought
- Personalized recommendations

Custom Decision Service
- Personalizing articles on a news website
- Personalizing video content on a media portal
- Optimizing ad placements
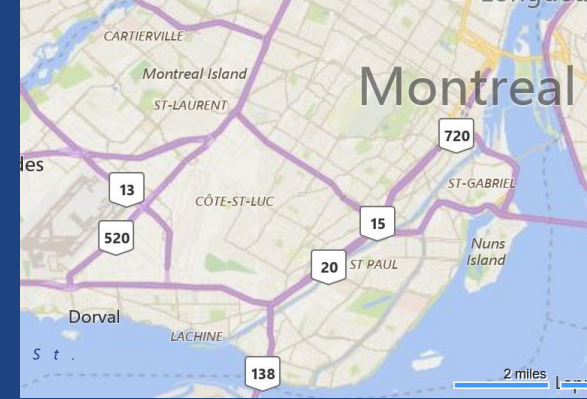- Ranking recommended items on a shopping website

Search

Bing API	Description
Autosuggest	Add type ahead capabilities to search
News Search	Return related news articles
Web Search	Return web search results
Entity Search	Return search results with details
Image Search	Return Image URLs and thumbnails
Video Search	Return video URLs and lengths
Custom Search	Create tailored search by specifying domains and subsites to search

API

Maps

A P I

[Project Local Insights](#) – Scores attractiveness of a location based on proximity to amenities
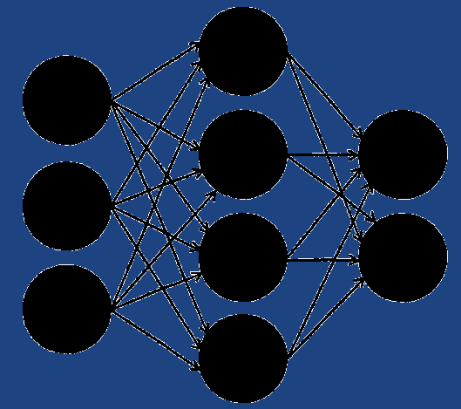
[Isochrone](#) – define a polygon showing what can be reached in a specific travel time

[Routing](#) – Calculate routes by foot, car, truck, or public transit

[Bing Maps](#) – Coordinates, Images, Elevations, Traffic incidents
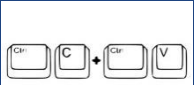
Machine Learning Studio

Train your own models with no coding

Azure Machine Learning Studio

1. Upload your data
2. Clean up the data
3. Split the data
4. Train your model
5. Test your model
6. Deploy the trained model as a web service
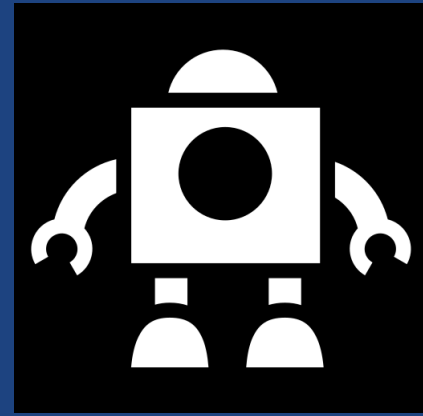7. Copy & paste the code and API key to call the trained model
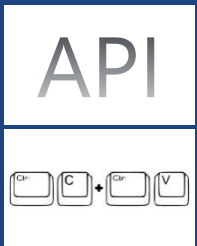
API

Step by Step tutorial

Bots

Create a bot to answer FAQ

[QnA Maker](#)

1. Provide your FAQ
   - URL
   - Document
   - Type in the questions and answers
2. Test and adjust
3. Publish
4. Create bot to call QnA Service
5. Embed in website or deploy to a channel

API

[Q&A Bot Tutorial](#)

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THANK YOU!

QUESTIONS?

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