

# Fun with APIs: The Big Bang Theory



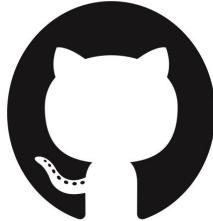
Uli Hitzel  
Developer Advocate  
Axway



# Developer Advocate



/in/uhitzel



/u1i/slides



IBM





## cosmicrenaissance

1,257 posts

194 followers

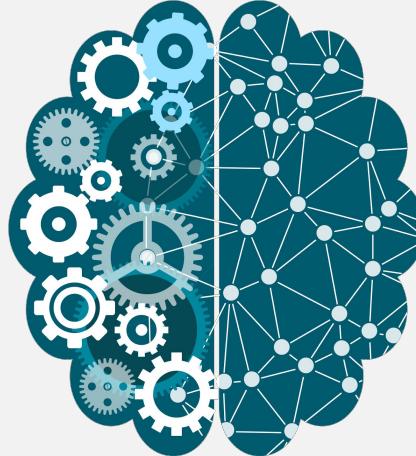
615 following

**Just some guy, really.**

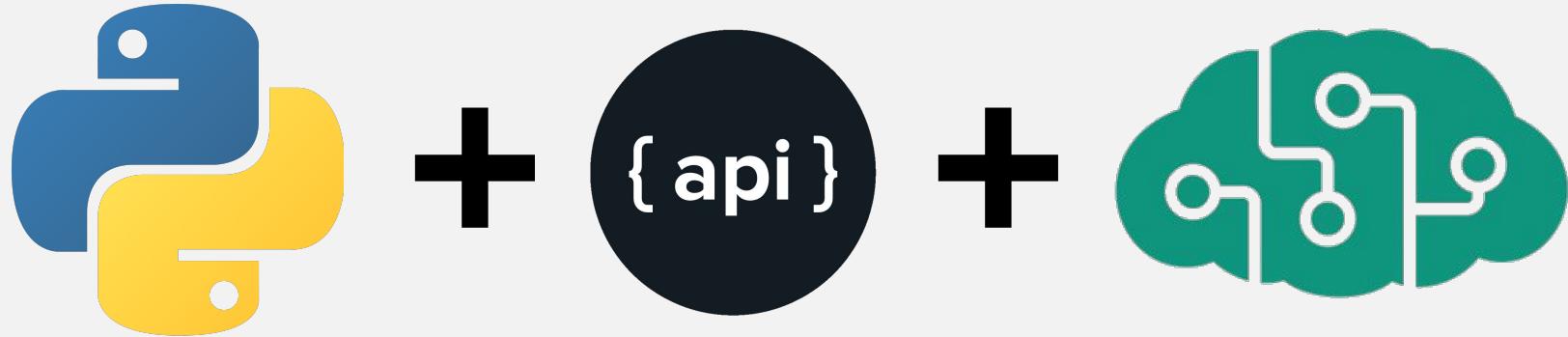
+65

City life, scenery, food.

Camera: Samsung Galaxy S7/S9

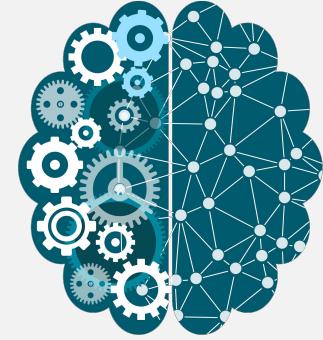


A word cloud visualization showing various nouns and adjectives in different colors (blue, green, orange, red) scattered across the page. The words are organized into several large, bold letters: 'clock' (top left), 'outdoor' (top center), 'city' (top right), 'water' (center), 'train' (left), 'tower' (bottom left), 'plate' (bottom center), 'view' (bottom middle), and 'field' (bottom right). Each letter contains a cluster of related words, such as 'sign' under 'outdoor', 'boat' under 'water', and 'bench' under 'plate'. Three green circles are overlaid on the word cloud, containing the words 'bench', 'view', and 'plate' respectively.



 Microsoft

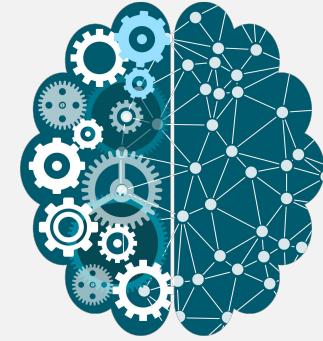
Cognitive Services



**Text:** "a close up of a pizza"

**Confidence:** 0.9246481371443355

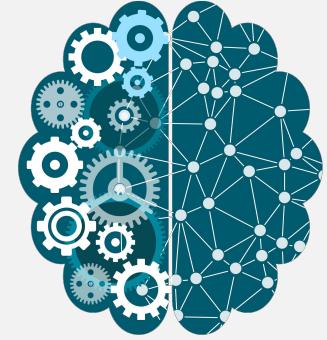
**Tags:** "pizza" "food" "table" "sitting" "cheese" "plate" "top" "piece" "slice" "toppings" "close" "eaten" "sauce" "covered" "wooden" "large" "pepperoni" "white" "pan"



**Text:** "a cup of coffee"

**Confidence:** 0.8527612488821656

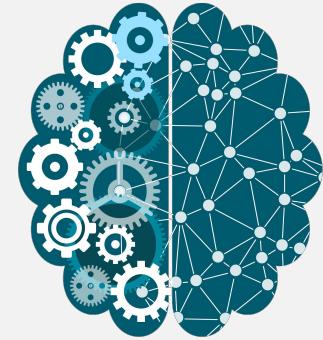
**Tags:** "cup" "table" "coffee" "food" "sitting" "drink" "plate" "sandwich" "breakfast"  
"spoon" "glass" "close" "donut" "hot" "white" "phone" "soup"



**Text:** "a wooden table next to a window"

**Confidence:** 0.8365439206950018

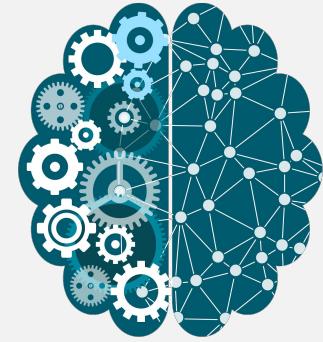
**Tags:** "table" "indoor" "window" "room" "sitting" "chair" "small" "desk" "wooden" "laptop" "lit" "top" "light" "counter" "computer" "living" "kitchen"



**Text:** "a sunset over the ocean"

**Confidence:** 0.8065587199349568

**Tags:** "outdoor" "water" "beach" "sunset" "ocean" "sun" "man" "pier" "track"  
"board" "top" "large" "red" "standing" "surfing" "walking" "boat" "holding" "flying"



**Text:** "a bunch of bananas"

**Confidence:** 0.37608016747604295

**Tags:** "animal" "covered" "sitting" "old" "side" "large" "water" "lot" "many" "top"  
"table" "bunch" "street" "fire" "bird" "snow" "parking" "group" "river" "ocean" "field"

# Key Points

- 1 – APIs allow you to innovate super fast!
- 2 – Focus on Use Cases
- 3 – Get out of the Basement!



# <http://apigeek.net>

## ISS Tracker

Tracking the International Space station over the course of one day and visualizing the flight path on a Google Earth like globe

[ISS Map](#)

[Code on Github](#)

## Big Bang Theory Opening Sequence

Computer Vision AI looking at every single frame and tells us what it sees

[All Frames & Results](#)

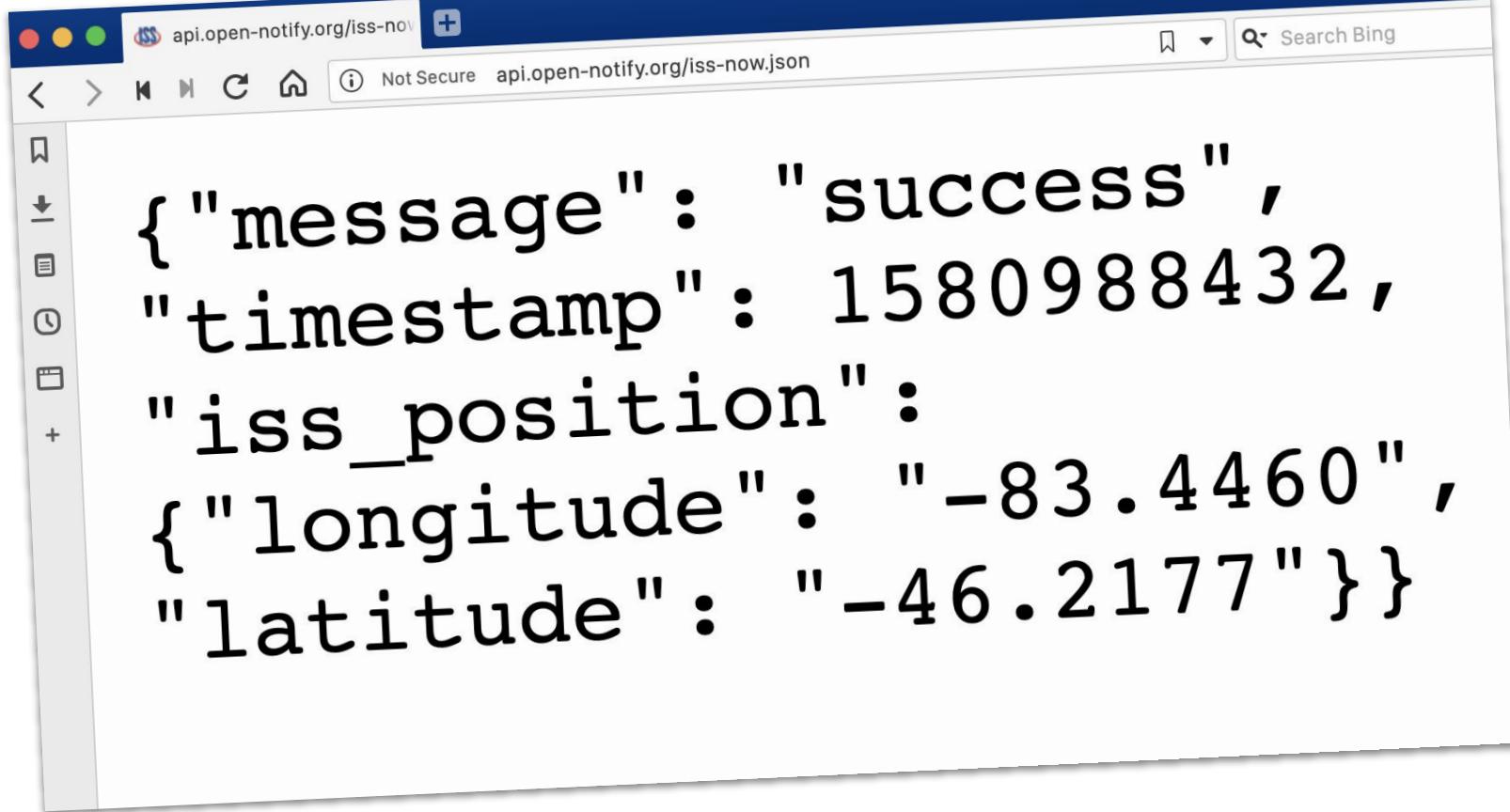
## LTA Buses Singapore

Google Maps visualization of Singapore's busy buses.

[Code & Maps](#)

[LinkedIn Article](#)





A screenshot of a web browser window displaying a JSON response. The browser has a dark blue header bar with a red, yellow, and green window control buttons on the left. The address bar shows the URL `api.open-notify.org/iss-now.json` with a "Not Secure" warning icon. To the right of the address bar is a search bar with the placeholder "Search Bing". Below the header is a toolbar with standard browser icons: back, forward, refresh, and home. On the far left, there is a vertical sidebar with various icons: a bookmark, a download arrow, a document, a clock, a calendar, and a plus sign. The main content area contains the following JSON data:

```
{ "message": "success", "timestamp": 1580988432, "iss_position": { "longitude": "-83.4460", "latitude": "-46.2177" }}
```



Hang on.  
APIs?

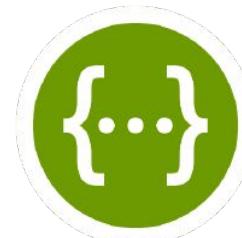


- Glue all kinds of services & data together
  - HTTP/REST
  - JSON
  - Swagger



# Design First

- What can I do?
- What do I get?
- Data Models
- Authentication
- License



```
1 swagger: "2.0"
2 info:
3   description: "This is a sample server for Swagger. Find out more about Swagger at [http://swagger.io] or on [irc.freenode.net, #swagger]. Within this sample, you can use the api key authorization filters."
4 version: "1.0.0"
5 title: "Swagger Petstore"
6 termsOfService: "http://swagger.io/terms/"
7 contact:
8   email: "apiteam@swagger.io"
9 license:
10   name: "Apache 2.0"
11   url: "http://www.apache.org/licenses/LICENSE-2.0.html"
12 host: "petstore.swagger.io"
13 basePath: "/v2"
14 tags:
15   - name: "pet"
16     description: "Everything about your pet"
17     externalDocs:
18       description: "Find out more"
19       url: "http://swagger.io"
20   - name: "store"
21     description: "Access to Petstore operations"
22   - name: "user"
23     description: "Operations about users"
24     externalDocs:
25       description: "Find out more about users"
26       url: "http://swagger.io"
```

# Divide & Conquer

2

## Use

- API Portal
- Swagger/OAS
- API Keys
- OAuth
- HTTP
- JSON
- Sandbox

## Manage

- Access Control
- Security
- Quotas
- Transformation
- Service Catalog
- Self Service
- Analytics

## Build

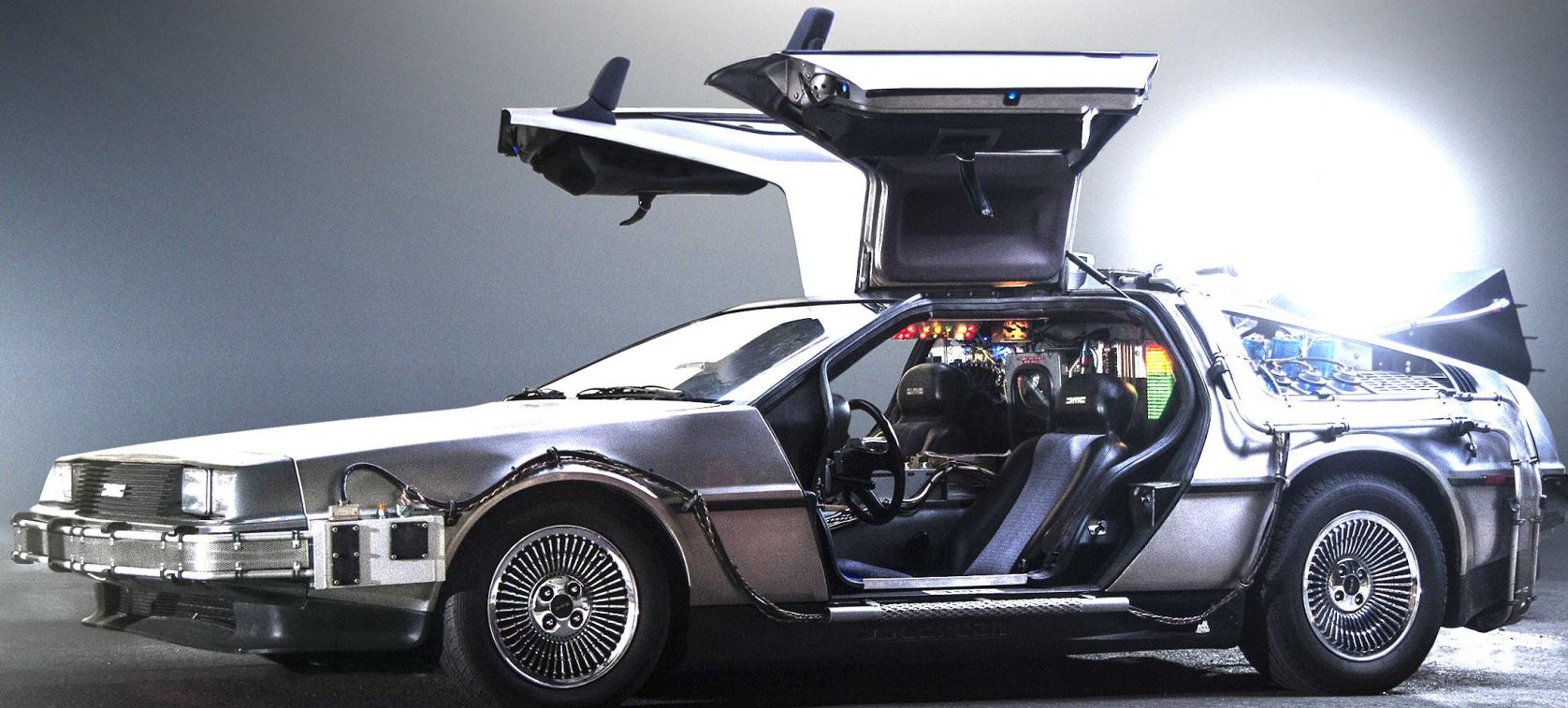


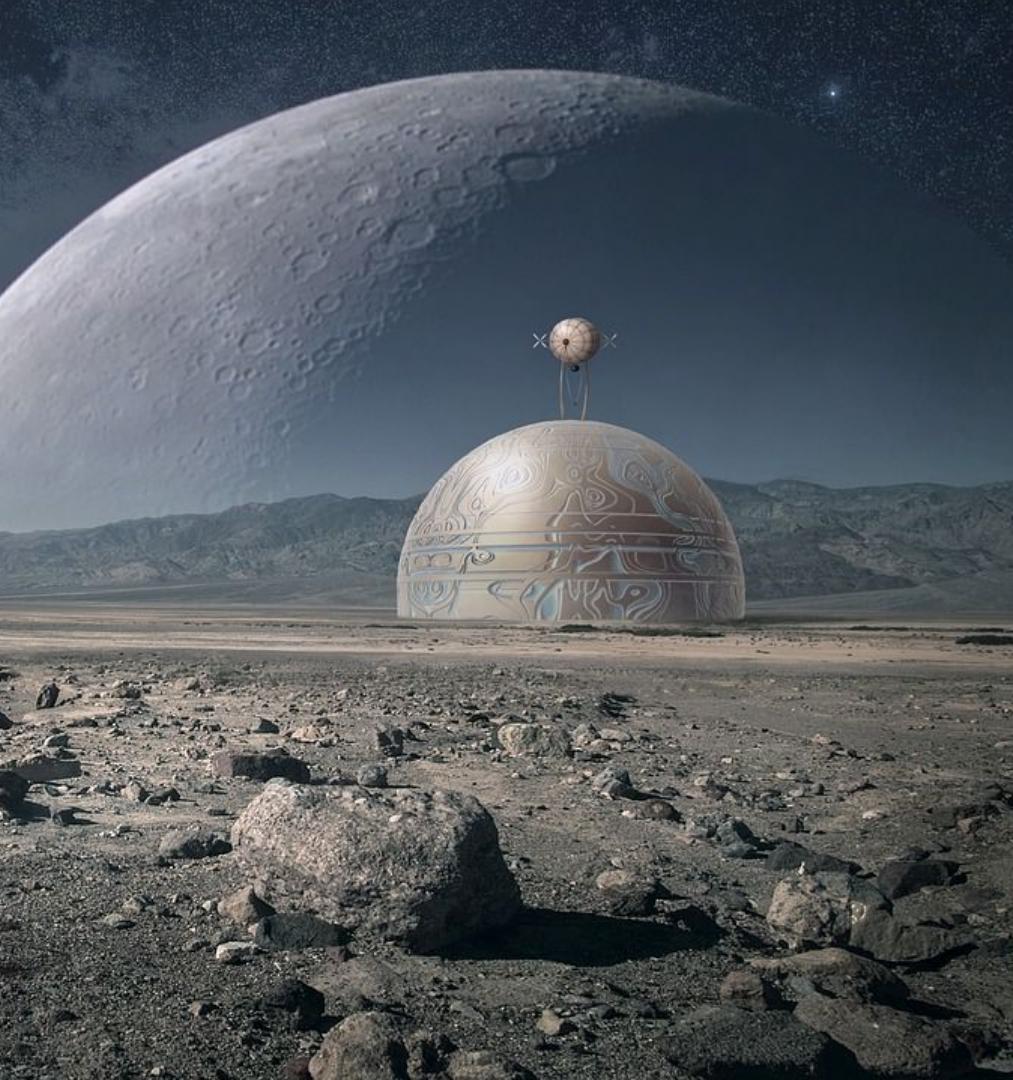
A photograph of a light blue plastic bucket with a red handle, sitting in a sandy area. The bucket appears to be partially filled with sand. It is positioned on the left side of the slide.

3

# Developer Experience

- Add all the ‘Lego Pieces’ to an API Portal
- Instant Discovery & Sandbox
- ‘Hello World’ in 30 minutes
- Innovation





Kubernetes  
Microservices  
Kafka  
Elastic  
Zookeeper  
MongoDB



A business and IT virtual series

# APIs on the edge: gateways & service mesh

May 5 - 8AM PDT/5PM CEST



Next week Wednesday  
10 pm Jakarta

<https://bit.ly/uliwebinar1>



John Wiese

Principal Solutions Architect  
Axway



Mihir Mone

Principal Pre-Sales Consultant  
Axway

# 'Hello World' in 30 Minutes

- Rapid Innovation
- Focus on Use Cases
- Collaborate with the Business



# Over To You!

- **Try it out:** Build something fun with APIs!
- **Don't reinvent:** Reuse stuff that's already there & great
- **Join & Share:** Participate at Meetups & Get Involved



/u1i

