

# Hot Dog / Not Hot Dog

## Artificial Intelligence with Drupal

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**Rob Loach**

Director of Technology

rob@kalamuna.com



# About me



Rob Loach  
Director of Technology,  
Kalamuna

**Twitter** @RobLoach

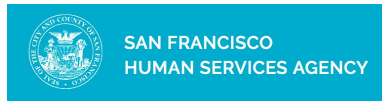
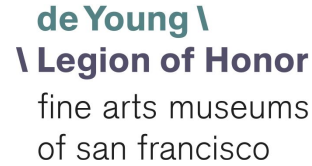
**LinkedIn** /in/robloach

**Email** rob@kalamuna.com



**Kalamuna**

**YOUR  
MISSION  
IS OUR  
MISSION**



**UCSF**

University of California  
San Francisco

**Berkeley**  
UNIVERSITY OF CALIFORNIA



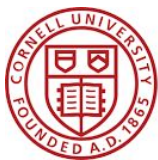
**UC HASTINGS**  
COLLEGE OF THE LAW  
SAN FRANCISCO



UNIVERSIT  
SAN FRANC



**Stanford**



**Cornell University**

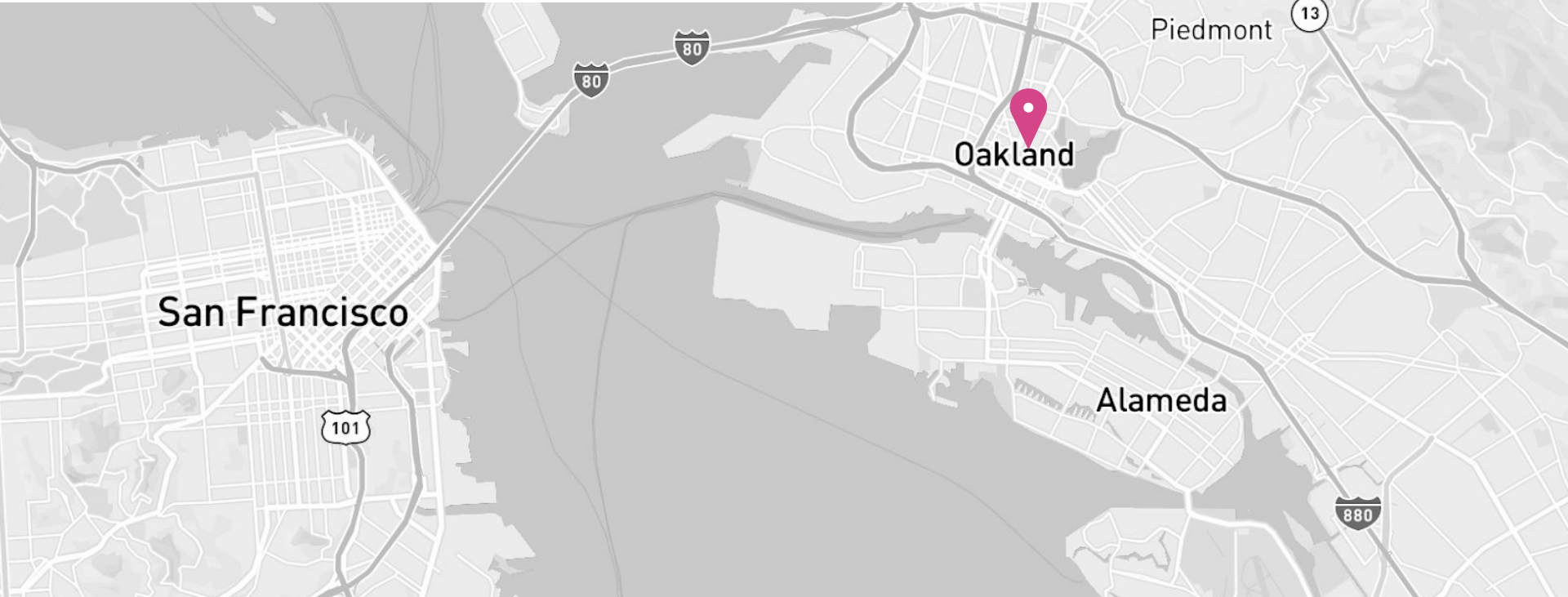


CURRY  
INTERNATIONAL  
TUBERCULOSIS  
CENTER



**Bixby Center**  
for Global  
Reproductive  
Health

# Based in Oakland



# Also distributed



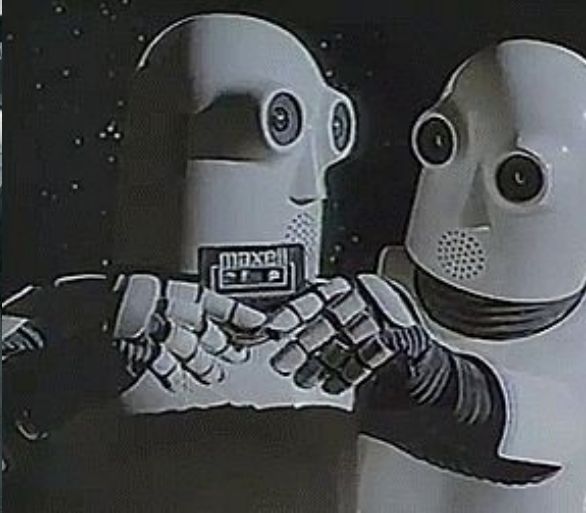
# Outline

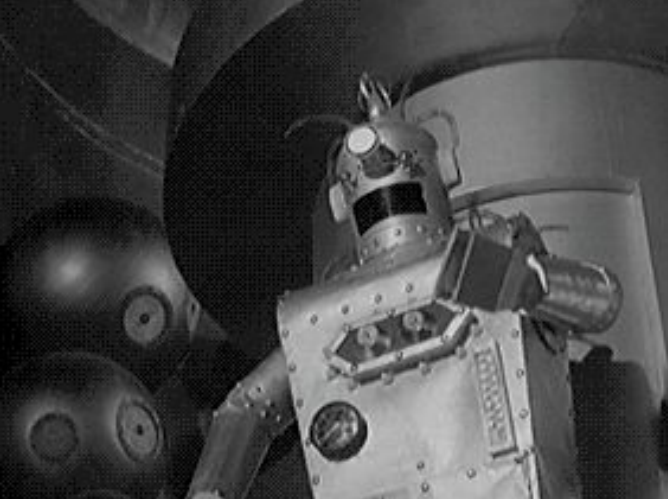
## This is what we're going to cover:

1. **Artificial Intelligence**
2. **Machine Learning**
3. **Computer Vision**
4. **Google Vision API**
5. **Demos**
  - Not Hot Dog
  - Drupal module
6. **Conclusion**



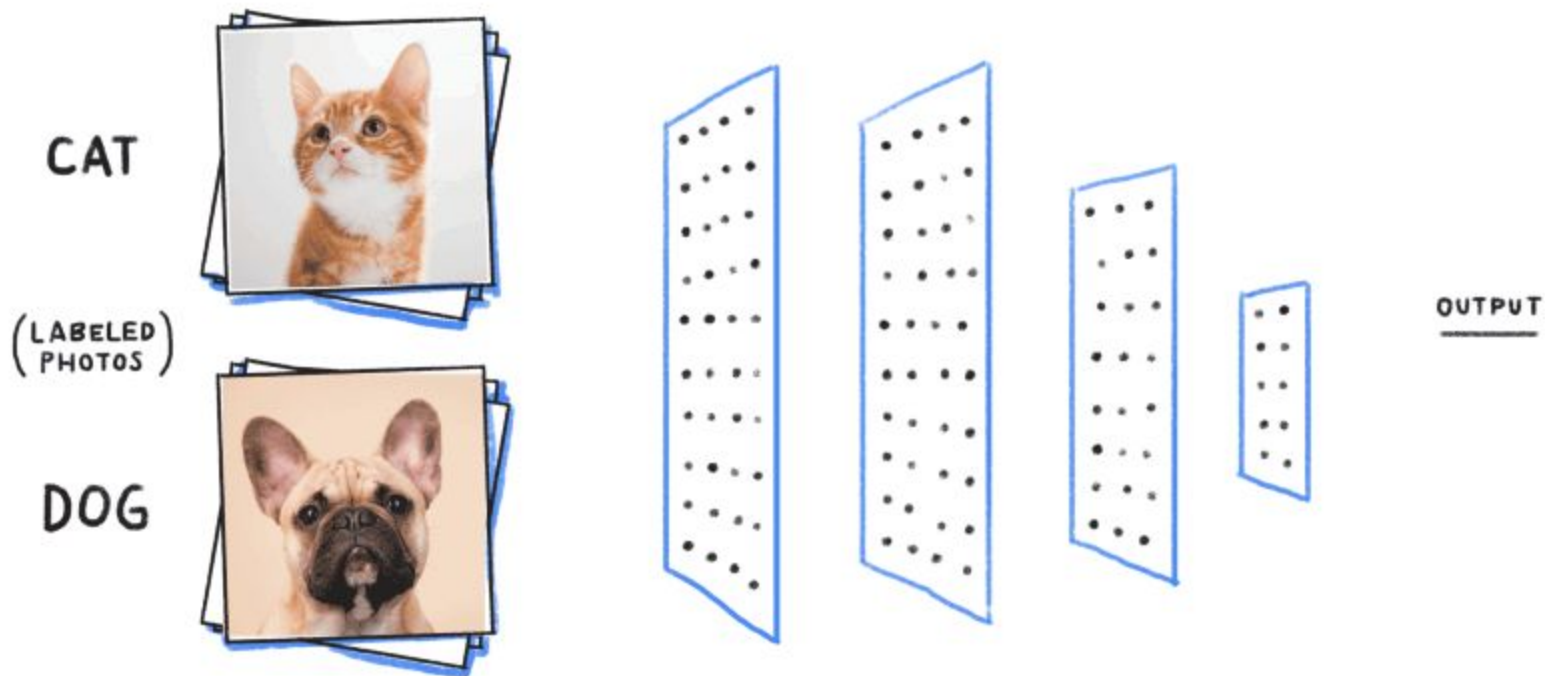
# Artificial Intelligence





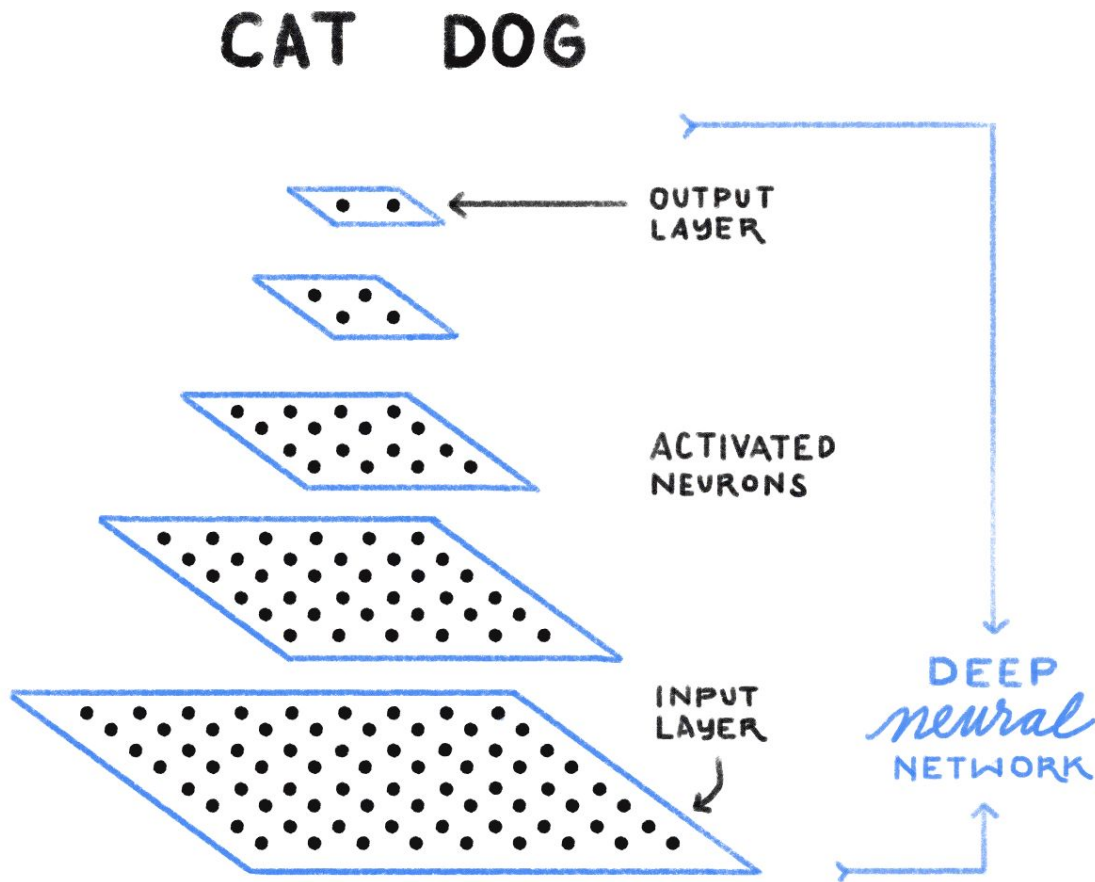
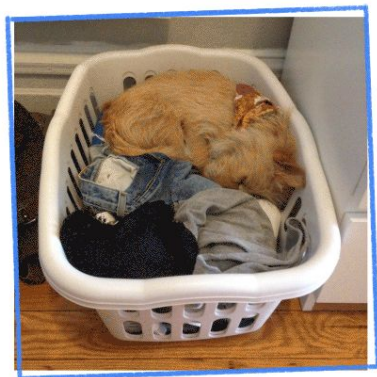
# Machine Learning

# Neural Network



# Neural Network

IS THIS A  
**CAT** or **DOG**?



**“If at first you don’t succeed,  
try a billion more times”**

# Computer Vision



# Computer Vision

realtor.com®



# Computer Vision



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Tue, Oct 23

45°F

Nearby

Local News

Neighbor Posts

Lifestyle

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New York City, NY Local News

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New York City | News | 10h

## NYPD Pulls Nearly 3,000 Body Cameras After 1 Explodes

The police commissioner suspended the use of the 2,990 cameras "out of an abundance of caution," the NYPD said.

By Noah Manskar, Patch Staff



Upper East Side | News | 2h

## Chopper Company Gives Deals For Doors-Off Flights On Which 5 Died

Sen. Chuck Schumer is "sounding the alarm" on a tour company for promoting the same flight that killed five people in March.

By Brendan Krisel, Patch National Staff



Featured Events ⓘ



Oct 23

Emma L. Bowen  
2018 Humanitarian  
Awards



Oct 24

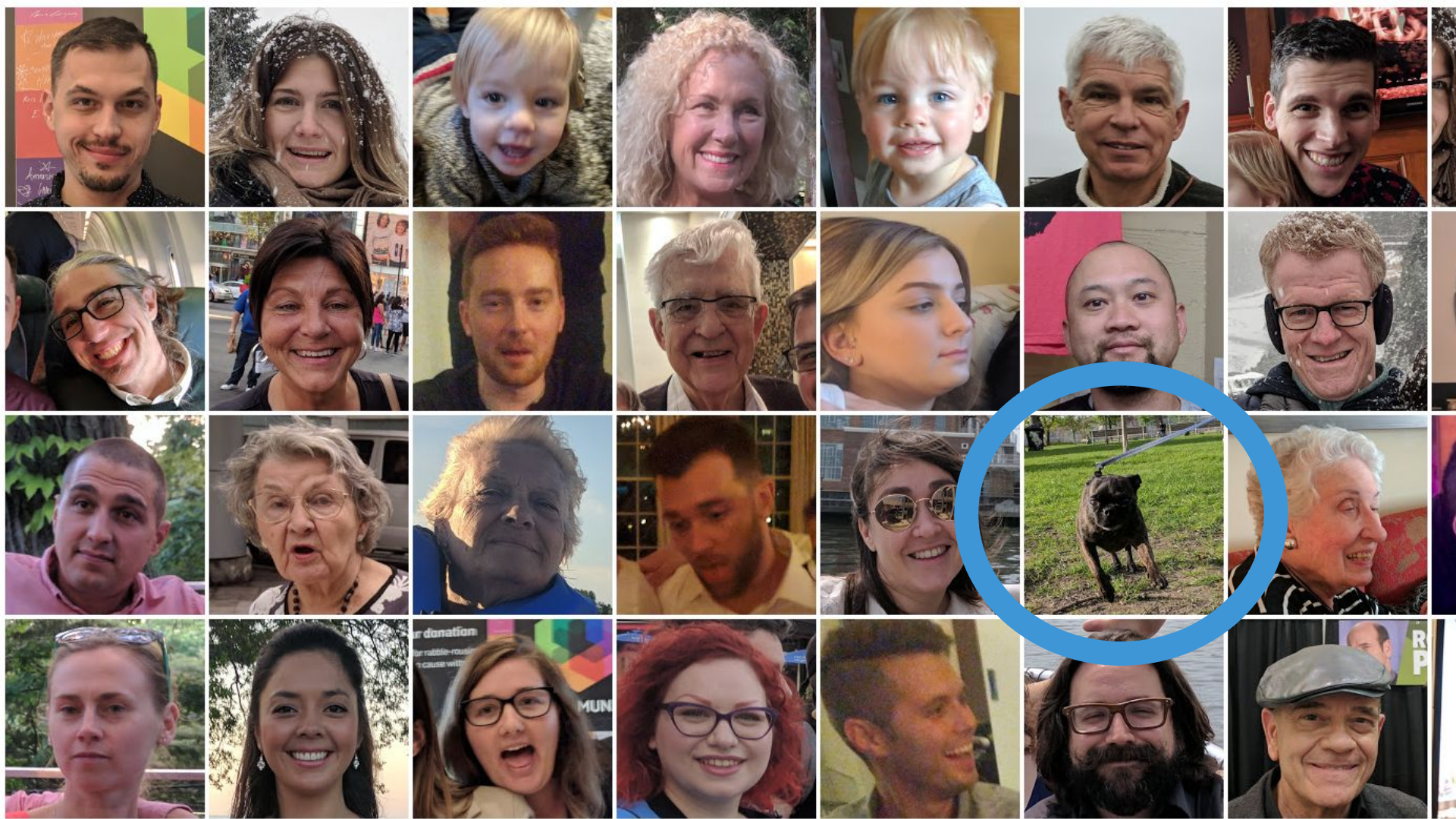
Wall Street Chan  
Meditation: Clarify  
Your Mind Beyond  
Mindfulness



Oct 26

Halloween Party  
Cruise NYC

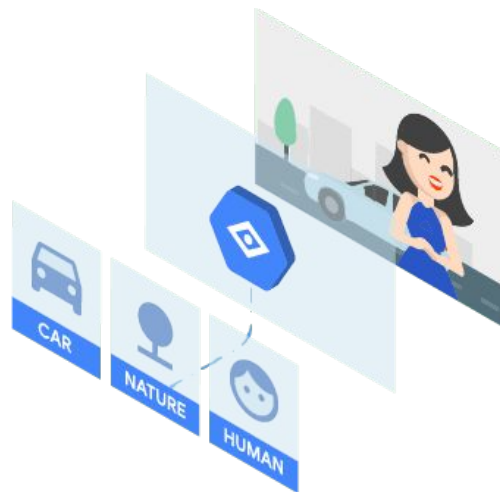
+ Add your event



# Google Vision API

# Google Vision API

- Label Detection
- Face Detection
- Optical Character Recognition
- Explicit Content Detection
- Landmark Detection
- Logo Detection



<https://cloud.google.com/vision/>

# Google Vision API

Google Vision API interface showing a face detection and emotion analysis result.

The interface includes tabs for Faces, Labels, Web, Properties, Safe Search, and JSON. The "Faces" tab is selected.

The main image shows a portrait of a man in a brown suit and tie, with a green bounding box around his face and green dots indicating facial landmarks.

The analysis results are displayed on the right side:

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

Roll:  $-2^\circ$  Tilt:  $3^\circ$  Pan:  $-8^\circ$


Confidence 100%

---

# Google Vision API

✕

Labels	Web	Properties	Safe Search	JSON
--------	-----	------------	-------------	------




209001\_10150864975436315\_1807733738\_n.jpg

Adult	■ ■ ■	Possible
Spoof	■ ■	Unlikely
Medical	■ ■ ■	Possible
Violence	■	Very Unlikely
Racy	■ ■ ■ ■ ■	Very Likely

Likelihood values are Unknown, Very Unlikely, Unlikely, Possible, Likely, and Very Likely

# Google Vision API

Labels   **Web**   Properties   Safe Search   JSON



**Web Entities**


CN Tower	1.63402
Scotiabank Arena	0.93152
Rogers Centre	0.65057
Mohr Partners, Inc.	0.48355
Travel	0.4421
Family Office & Wealth Managemen...	0.4383
	0.3734
	0.3361
Stock photography	0.3137
CityPASS	0.3082
	0.2831
Hotel	0.2665
Toronto	0.00002
Ontario	0
Canada	0

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Pages with Matched Images



# Google Vision API

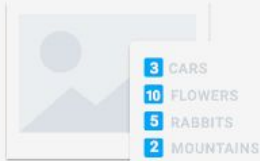
Labels	Web	Properties	Safe Search	JSON
				<pre>{   "labelAnnotations": [     {       "mid": "/m/0j_s4",       "description": "metropolitan area",       "score": 0.980813,       "topicality": 0.980813     },     {       "mid": "/m/01fdzj",       "description": "tower",       "score": 0.95251584,       "topicality": 0.95251584     },     {       "mid": "/m/01n32",       "description": "city",       "score": 0.94681555,       "topicality": 0.94681555     },     {       "mid": "/m/05_5t0l",       "description": "landmark",       "score": 0.9442733,       "topicality": 0.9442733     },     {       "mid": "/m/034z7h",       "description": "cityscape",       "score": 0.9400312,       "topicality": 0.9400312     },     {       "mid": "/m/079cl",       "description": "skyscraper",       "score": 0.922232, </pre>

# Google Vision API

<https://cloud.google.com/vision/>



bridge.jpg



## Insight From Your Images

Easily **detect broad sets of objects** in your images, from flowers, animals, or transportation to thousands of other object categories commonly found within images. **Vision API improves over time** as new concepts are introduced and accuracy is improved.

**Demos**

# Not Hot Dog

<https://github.com/kalamuna/hotdog>

**SEEFood FOUNDER LAUNCHES  
"NOT HOT DOG" APP**



# Hot Dog/Not Hot Dog

See if an image is a hot dog, or not a hot dog.



Upload an image...

## Not a Hot Dog



**Your image is not a hot dog.**

Person: 94.23277%

Man: 90.791917%

Tie: 73.0511%

## Not a Hot Dog



**Your image is not a hot dog.**

Cucumber: *80.135727%*

## Hot Dog



**Your image is a hot dog.**

Hot dog: 92.36066%

Fruit: 57.51335%



# Not Hot Dog



Search or jump to...



[Pull requests](#) [Issues](#) [Marketplace](#) [Explore](#)



[kalamuna / hotdog](#) Private

Unwatch ▾

3

Star

0

Fork

0

Code

Issues 0

Pull requests 0

Projects 0

Wiki

Insights

Settings

No description, website, or topics provided.

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5 commits

2 branches

0 releases

1 contributor

Branch: **master** ▾

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[Find file](#)

[Clone or download](#) ▾



**RobLoach** Update web server

Latest commit 2ca78c0 4 hours ago

<a href="#">images</a>	Add logo	2 days ago
<a href="#">templates</a>	Add logo	2 days ago
<a href="#">.gitignore</a>	Upload templates	2 days ago
<a href="#">.service</a> <a href="#">account.sample.json</a>	Upload templates	2 days ago

# Drupal Module

 Search by keyword, ingredient, dish

Search

Log in

*umami*  
FOOD MAGAZINE

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## Super easy vegetarian pasta bake

A wholesome pasta bake is the ultimate comfort food. This delicious bake is super quick to prepare and an ideal midweek meal for all the family.

Super easy vegetarian pasta bake





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Super easy vegetarian pasta bake



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A wholesome pasta bake is the ultimate comfort food. This delicious bake is super quick to prepare and an ideal midweek meal for all the family.

Get the recipe here

# Drupal Module



Search or jump to...

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## Google Cloud Vision Drupal module

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[Manage topics](#)

[1 commit](#)

[1 branch](#)

[0 releases](#)

[1 contributor](#)

[GPL-2.0](#)

Branch: [master](#)

[New pull request](#)

[Create new file](#)

[Upload files](#)

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**RobLoach** Initial commit

Latest commit 4644ab6 41 seconds ago

[docs](#)

Initial commit

41 seconds ago

[img](#)

Initial commit

41 seconds ago

[js](#)

Initial commit

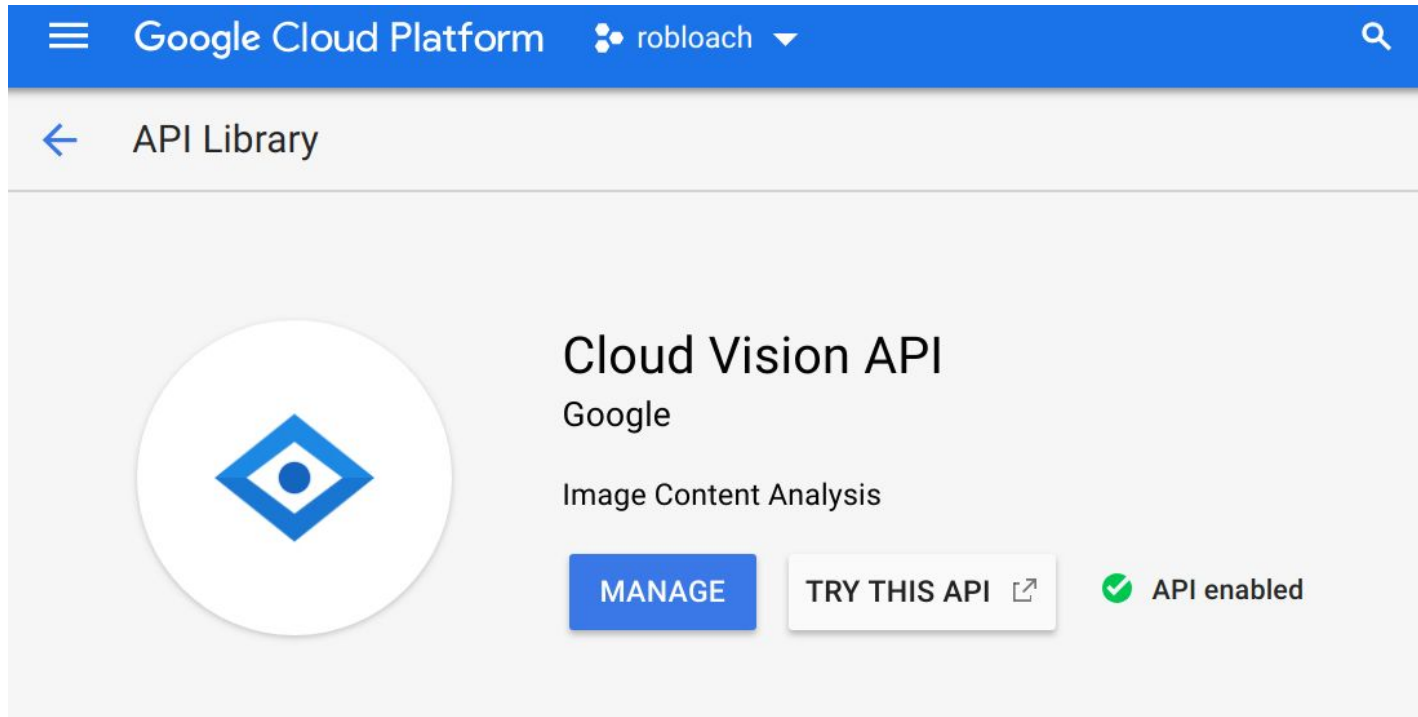
41 seconds ago

[src](#)

Initial commit

41 seconds ago

# Google Cloud Platform Credentials



The screenshot shows the Google Cloud Platform interface. At the top, a blue navigation bar contains the text "Google Cloud Platform" and a user profile "robloach" with a dropdown arrow. A search icon is on the right. Below this is a breadcrumb "API Library" with a back arrow. The main content area features a large circular icon of the Cloud Vision API (a blue diamond with a dot). To the right of the icon, the text reads "Cloud Vision API", "Google", and "Image Content Analysis". At the bottom of this section, there are three elements: a blue "MANAGE" button, a white "TRY THIS API" button with an external link icon, and a green checkmark followed by the text "API enabled".

Type

Overview

# Google Cloud Platform Credentials

Google Cloud Platform robloach

APIs & Services

Credentials

Credentials OAuth consent screen Domain verification

Create credentials Delete

- API key  
Identifies your project using a simple API key to check quota and access
- OAuth client ID  
Requests user consent so your app can access the user's data
- Service account key**  
Enables server-to-server, app-level authentication using robot accounts
- Help me choose  
Asks a few questions to help you decide which type of credential to use

# Google Cloud Platform Credentials



Google Cloud Platform



robloach ▼



Create service account key

## Service account

App Engine default service account ▼

## Key type

Downloads a file that contains the private key. Store the file securely because this key can't be recovered if lost.

JSON

Recommended

P12

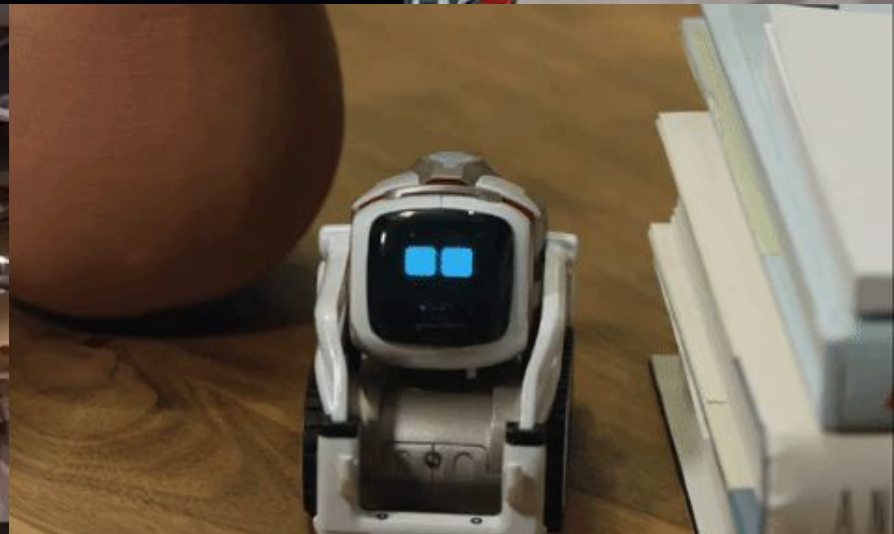
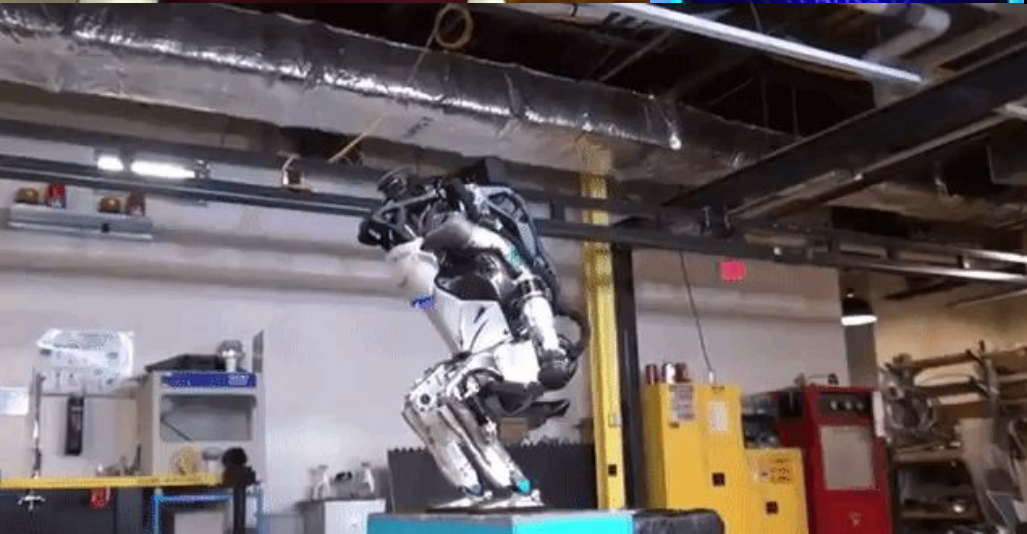
For backward compatibility with code using the P12 format

Create

Cancel



# Conclusion





Hi, how can I help?

# Thank You!

rob@kalamuna.com

LinkedIn: /robloach

Twitter: @robloach

# Any questions? Learn more!

**Google Vision API**

<https://cloud.google.com/vision/>

**Hot Dog/Not Hot Dog**

<https://github.com/kalamuna/hotdog>

**Google Cloud Vision**

[https://github.com/kalamuna/google\\_cloud\\_vision](https://github.com/kalamuna/google_cloud_vision)

**Using Machine Learning  
to Augment your Content**

1:30 PM Toll Room (Alumni)  
... with Angelo Porretta, aka captainpants

**TensorFlow**

<https://www.tensorflow.org>

**OpenAI**

<https://openai.com>

**Q & A**

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