

SNACK WATCHER

USING

MICROSERVICES

Jonah's Working Group



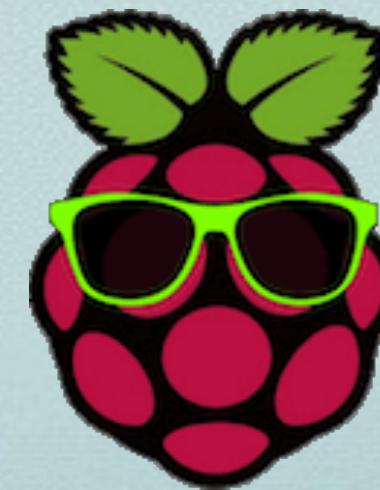
Benny
Cheung



Mark
Bloomer



Randolph
Salvador



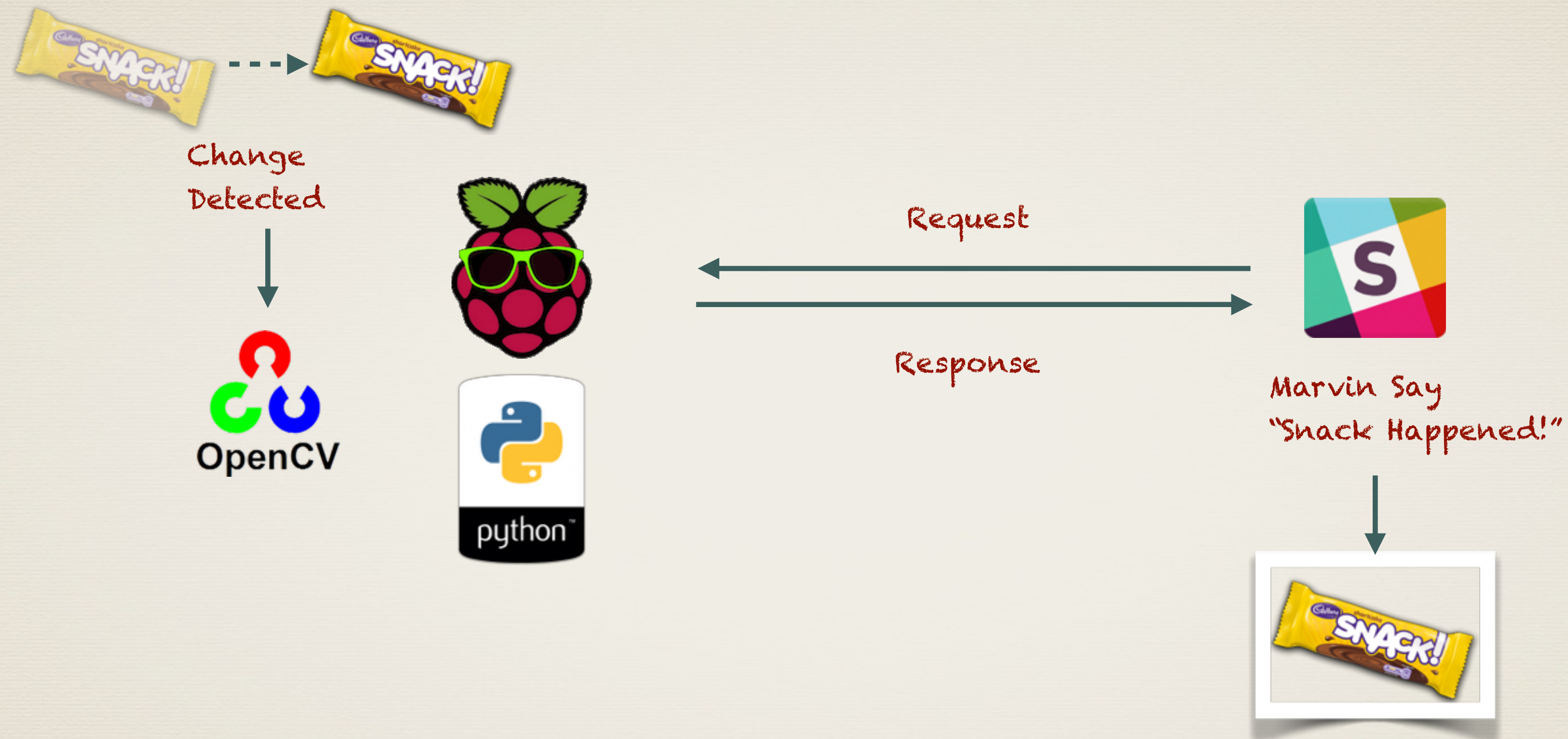
presented by Benny Cheung
June 2016



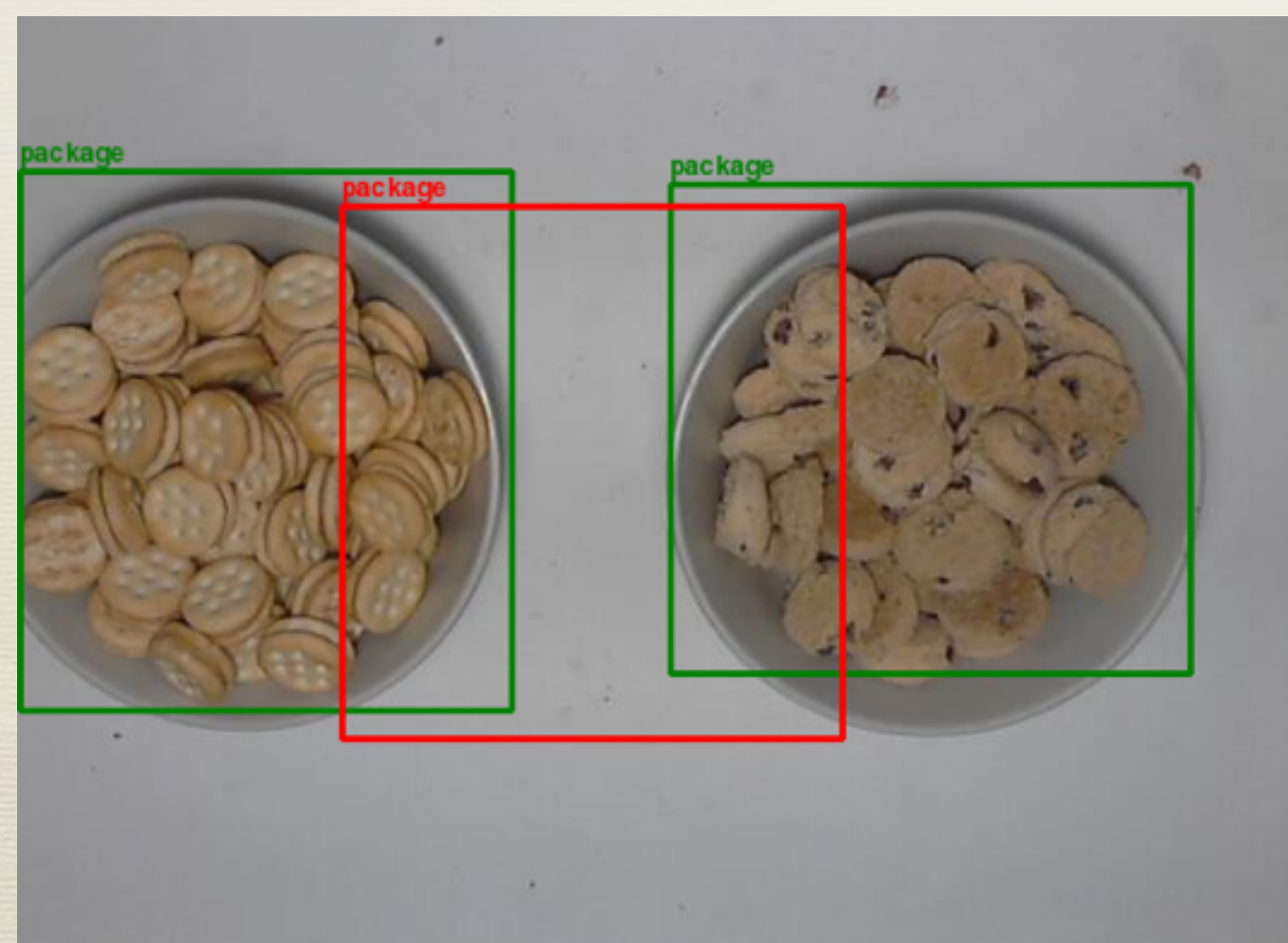
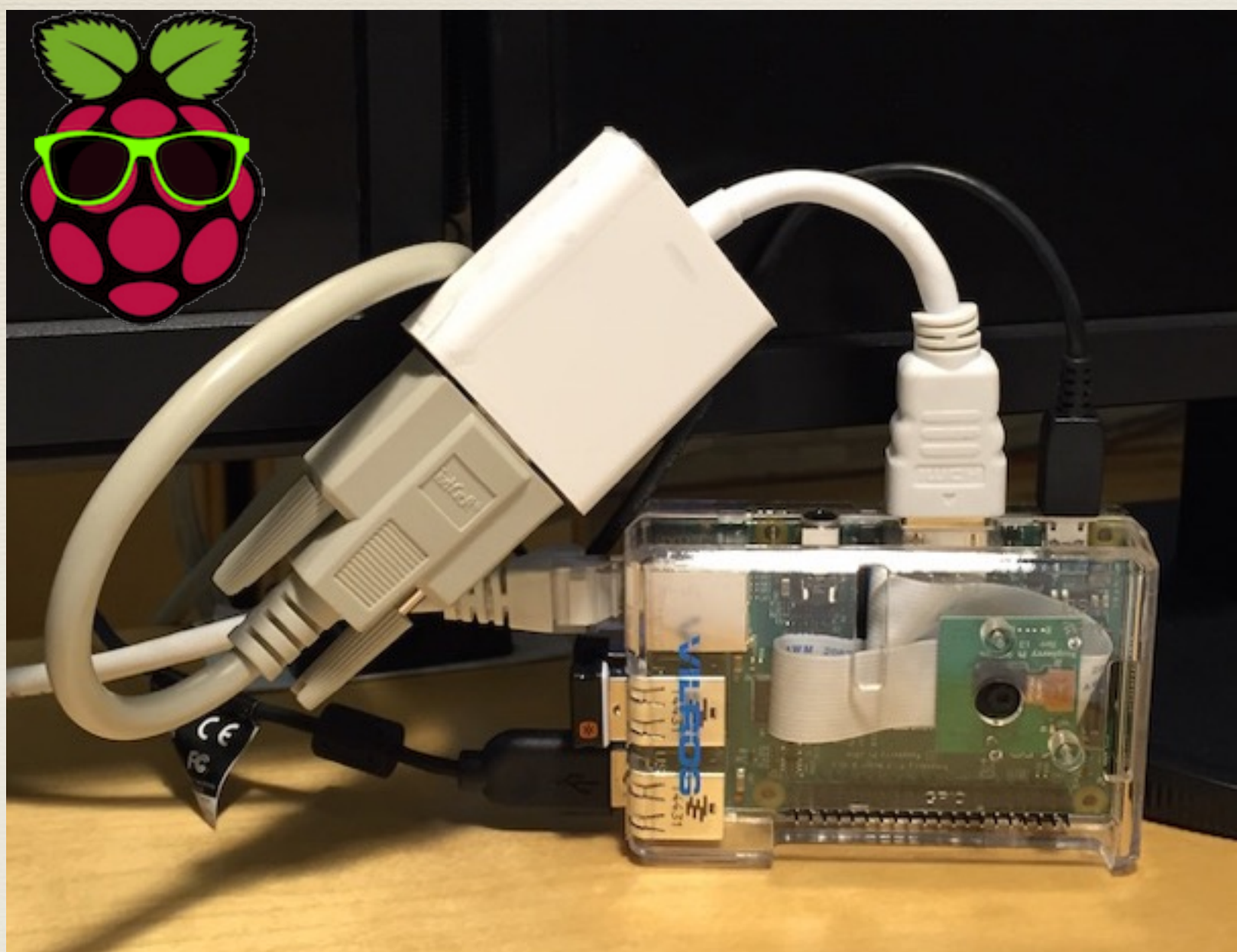
Snack
is coming

Picture Credit: Game of Thrones

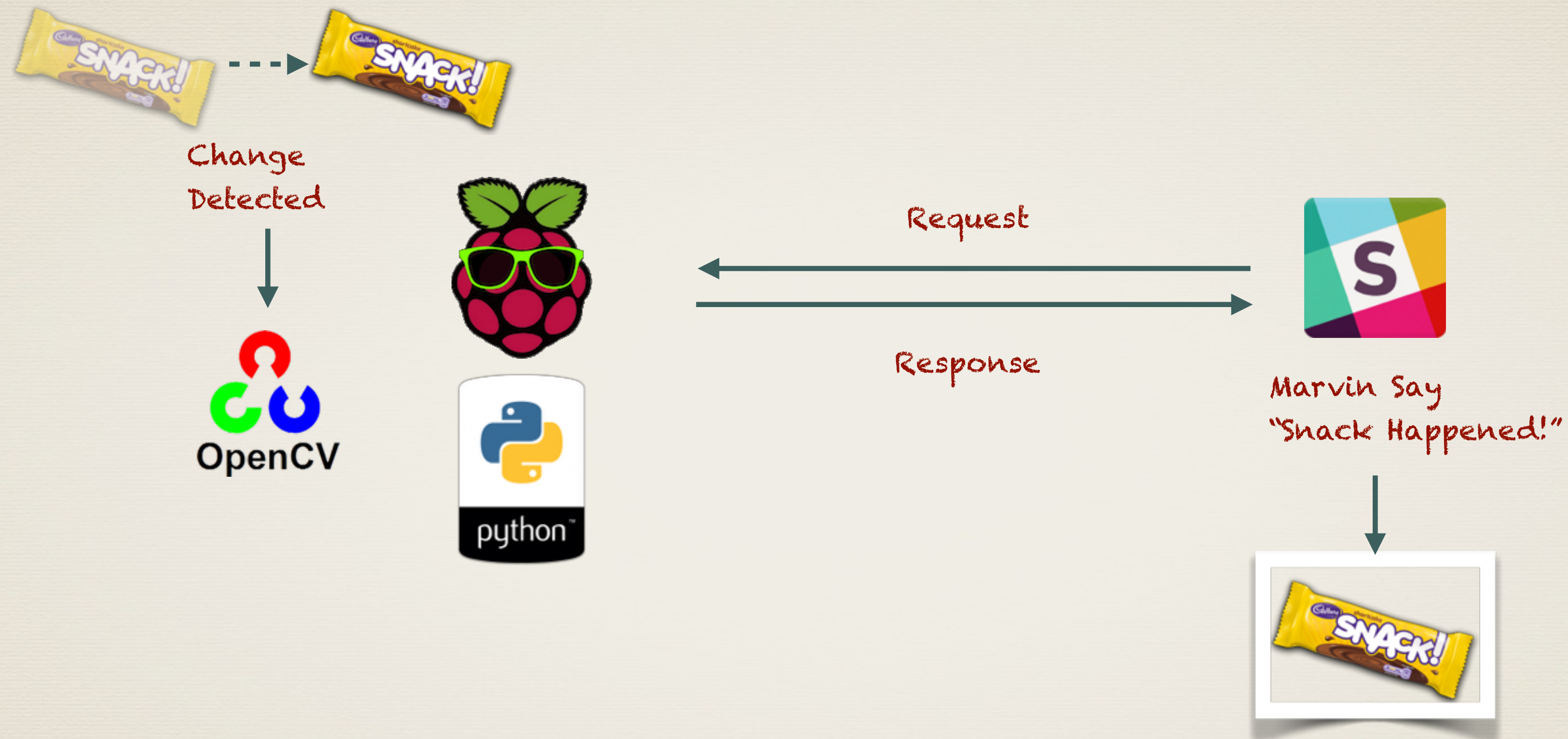
Snack Watching



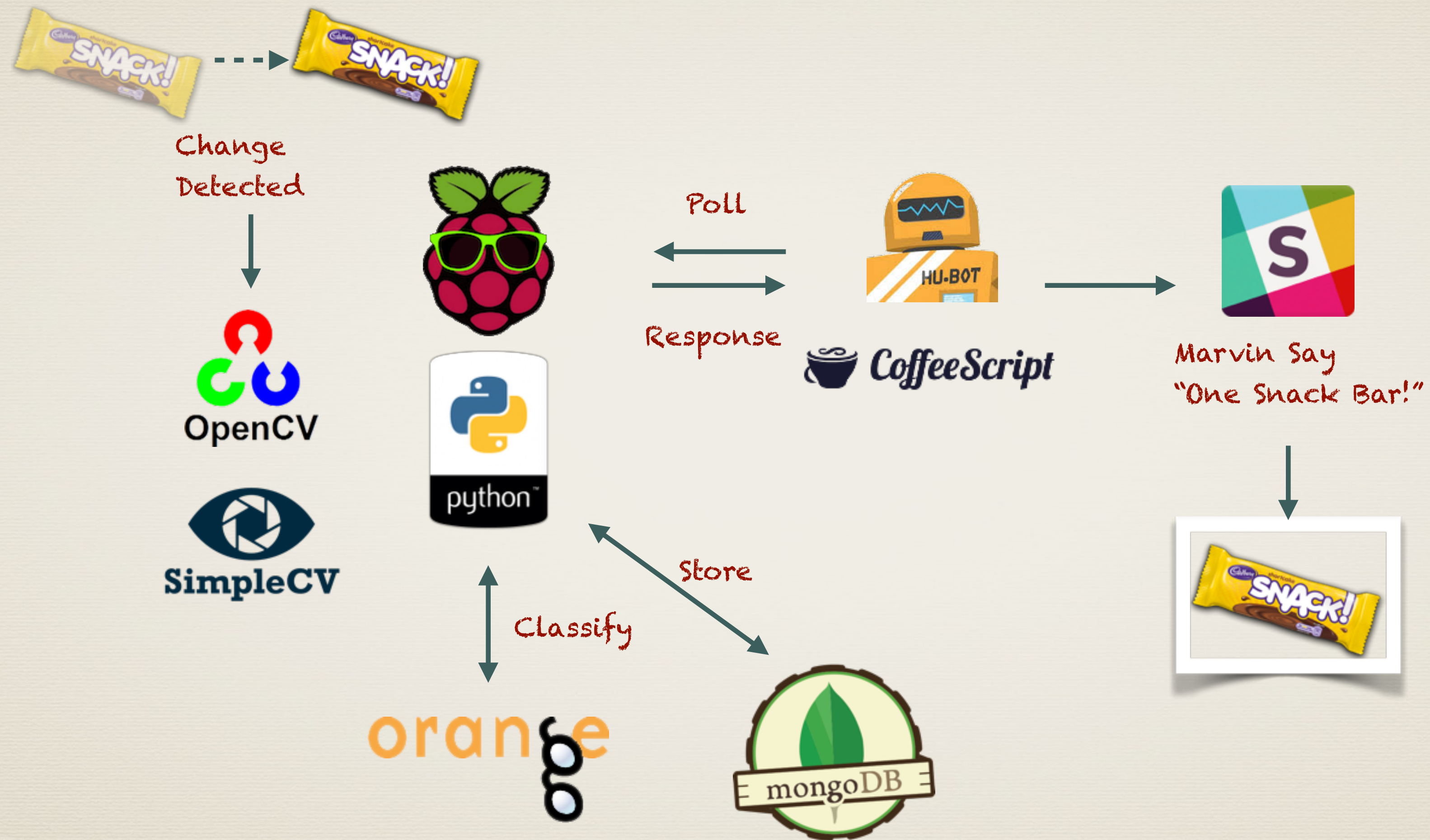
Snack Watcher



Snack Watching



Snack Classifying



Cookie-ness

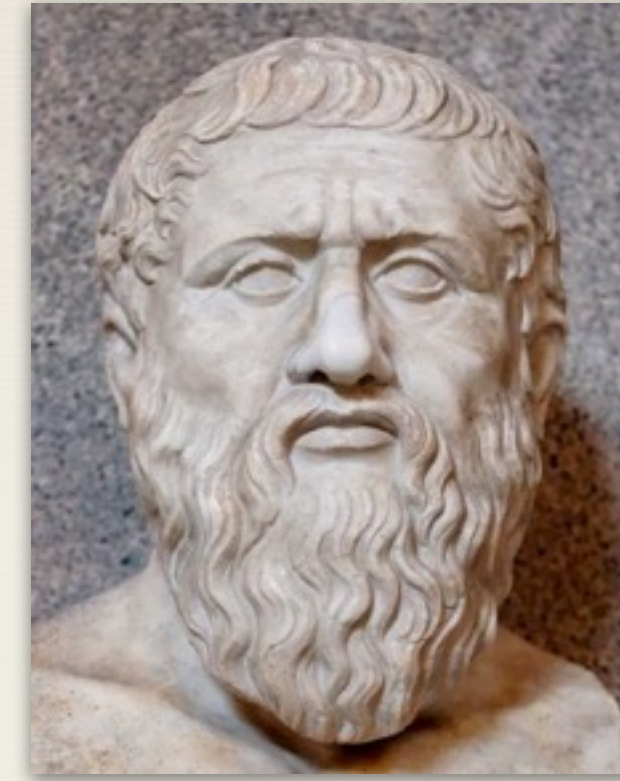
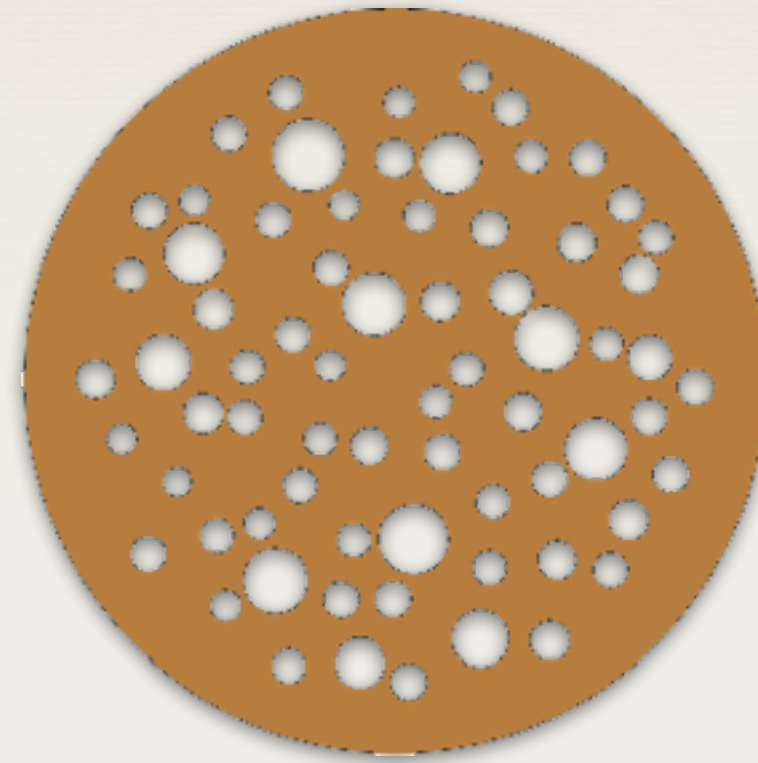


Are You Sure ?

Are You Sure?



Cookie-ness



Universal

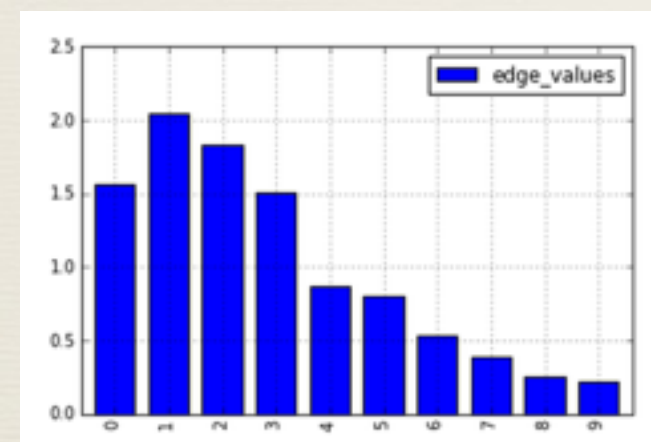


General Abstract Properties

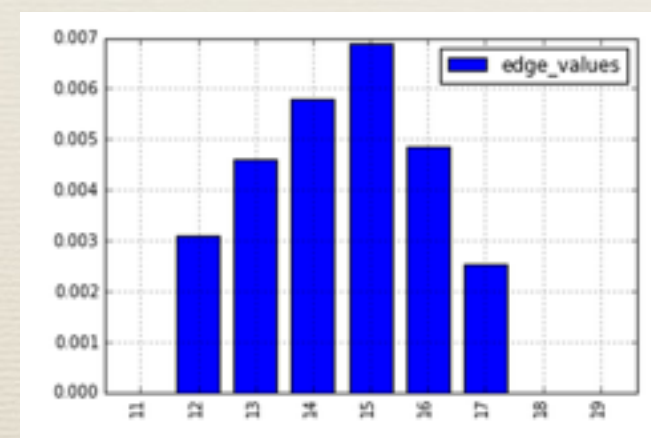


Matter ←————→ Mind

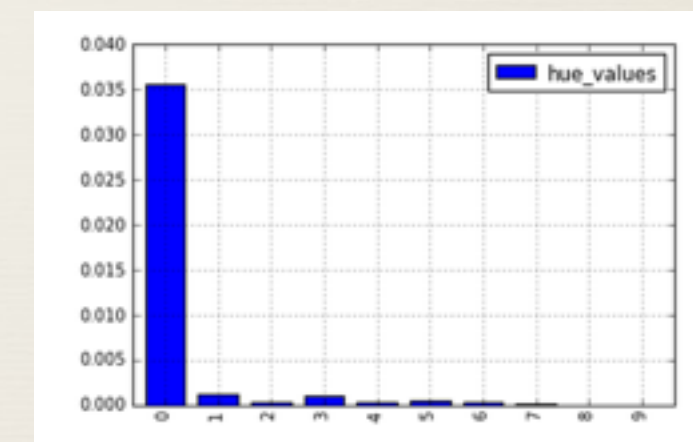
Cookie-ness by Image Processing



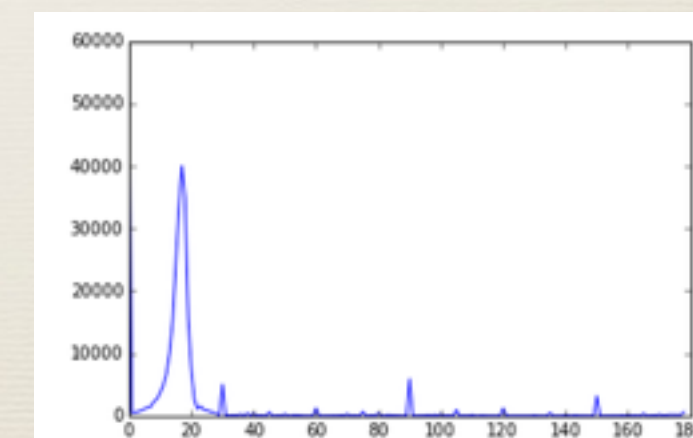
Length



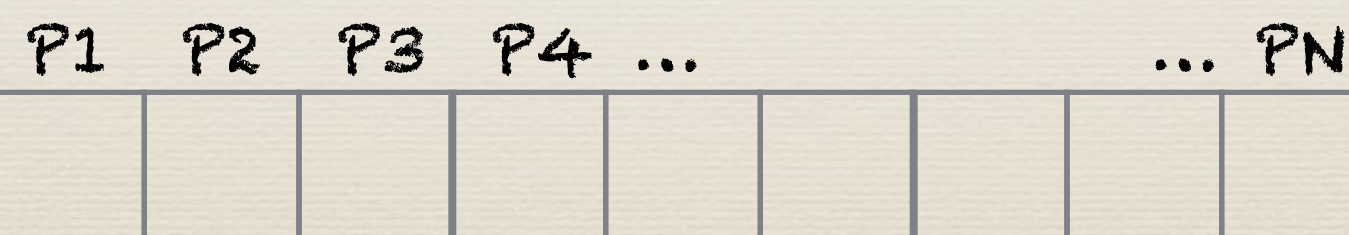
Angle



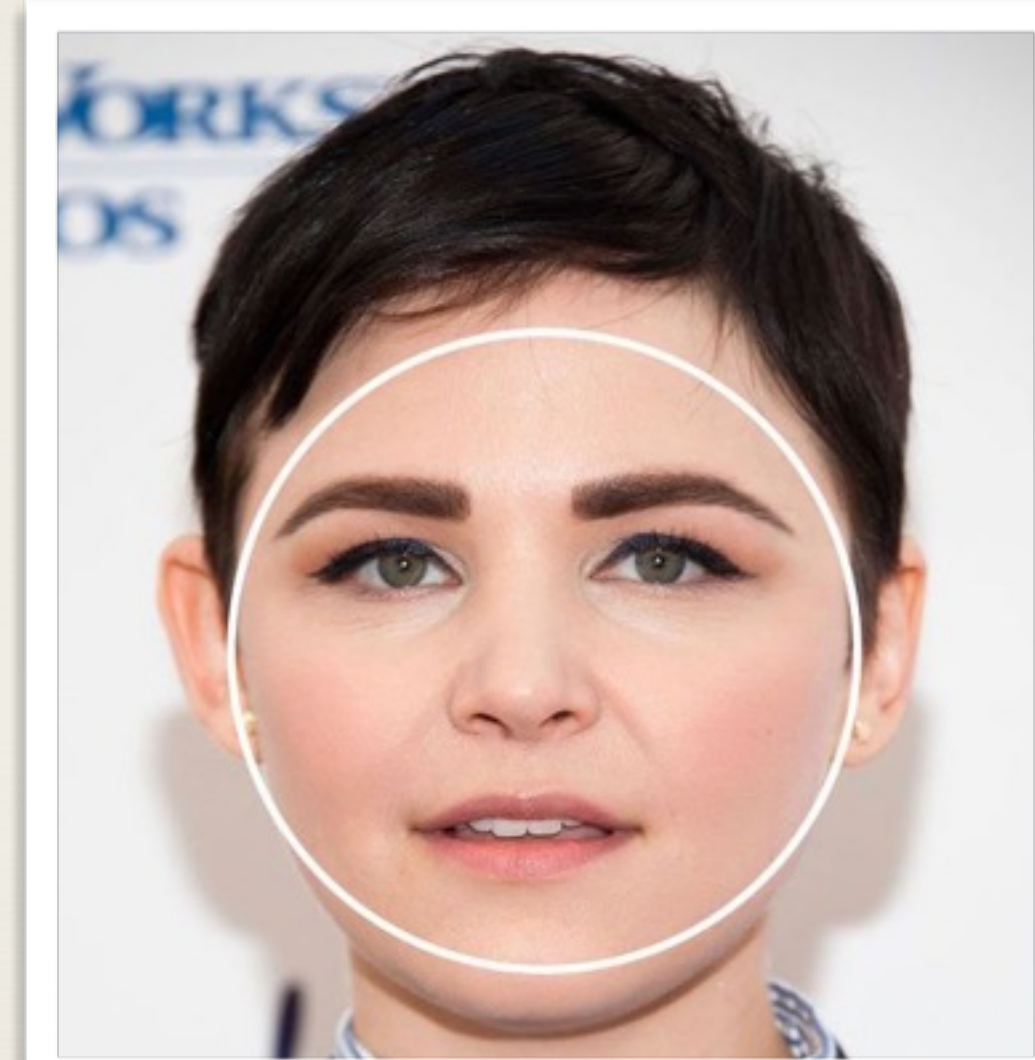
Hue



Peak

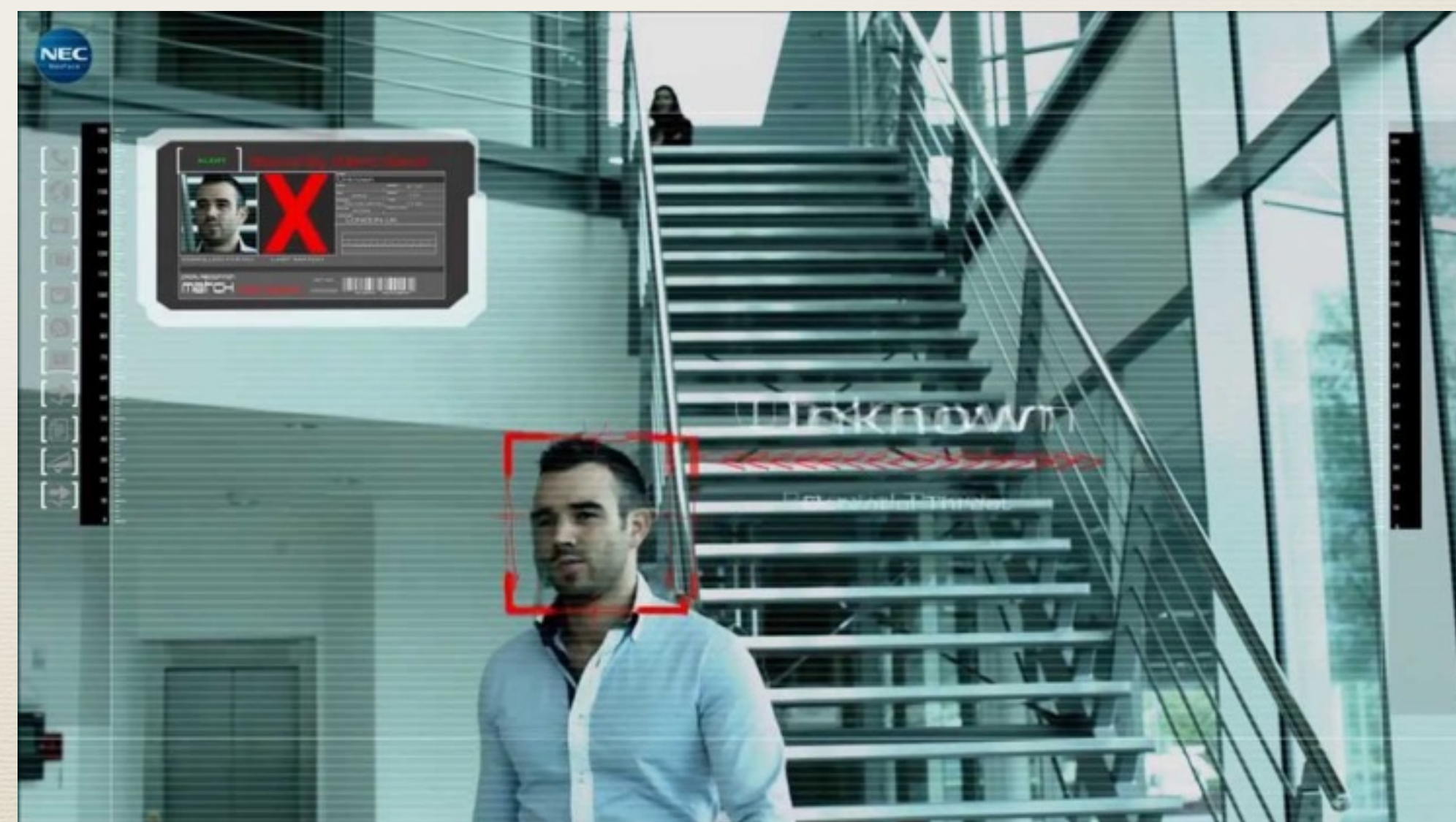


Cookie-ness Principles



Matter $\longleftrightarrow$ Mind

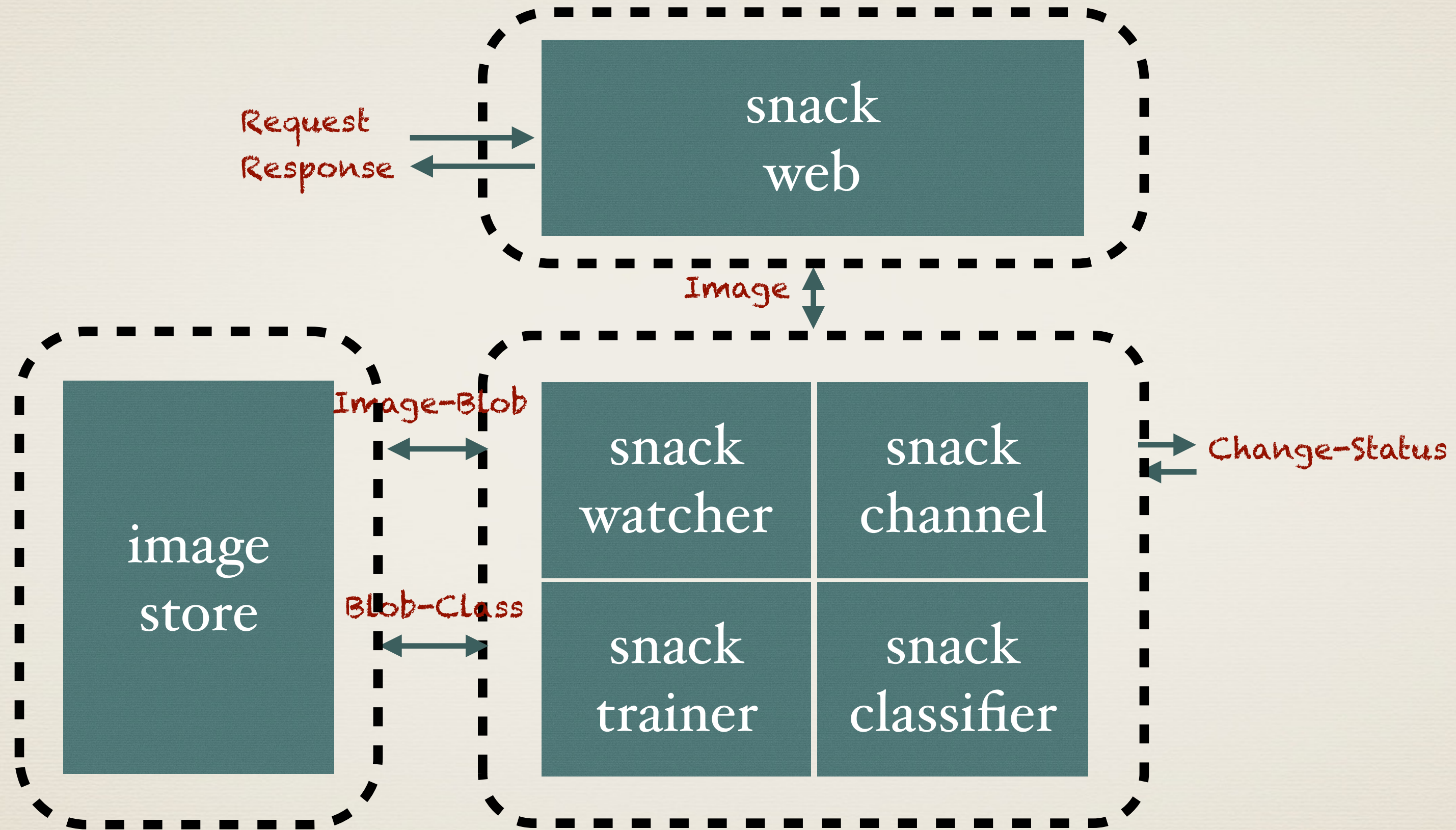
Face Watching



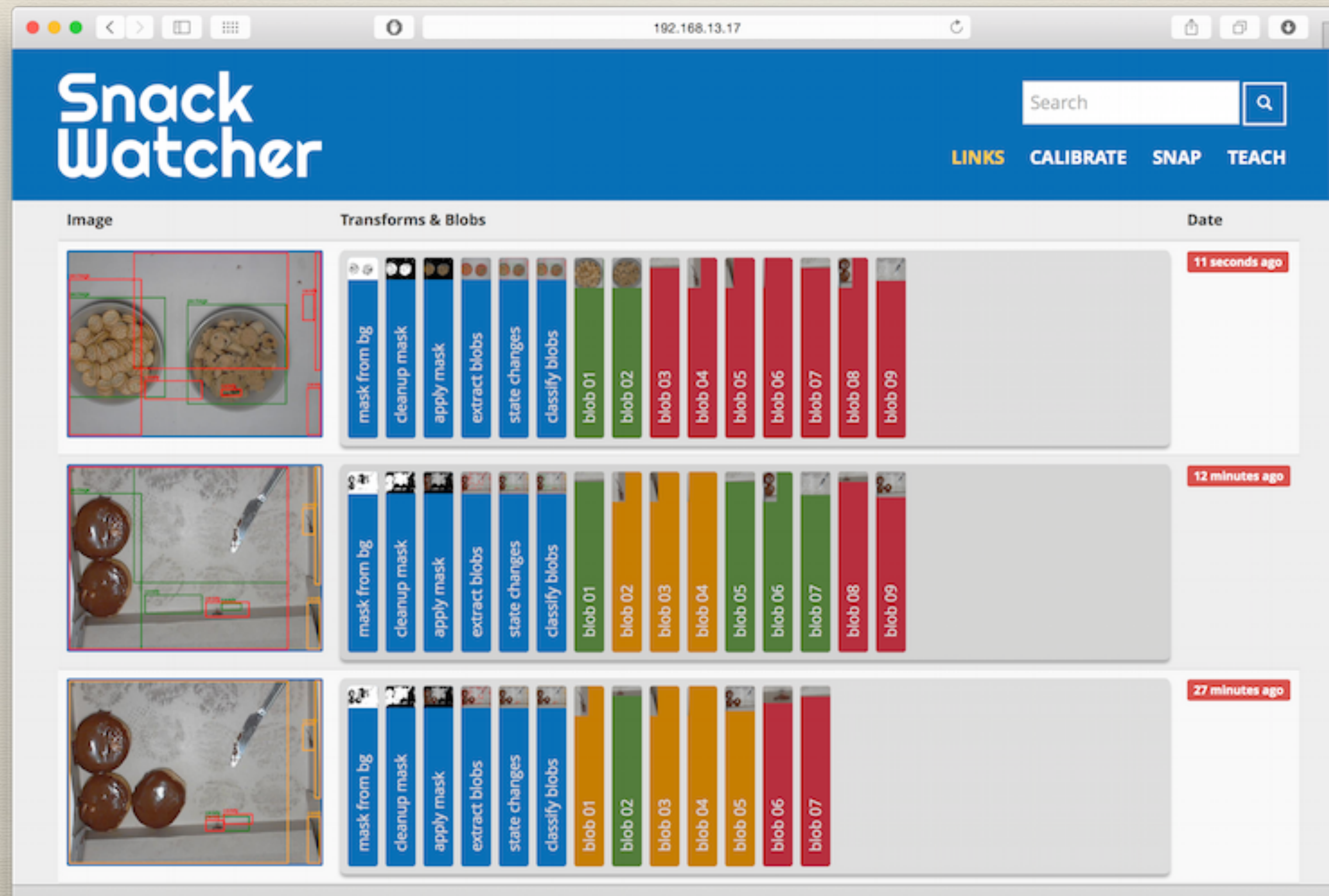
Pill Watching



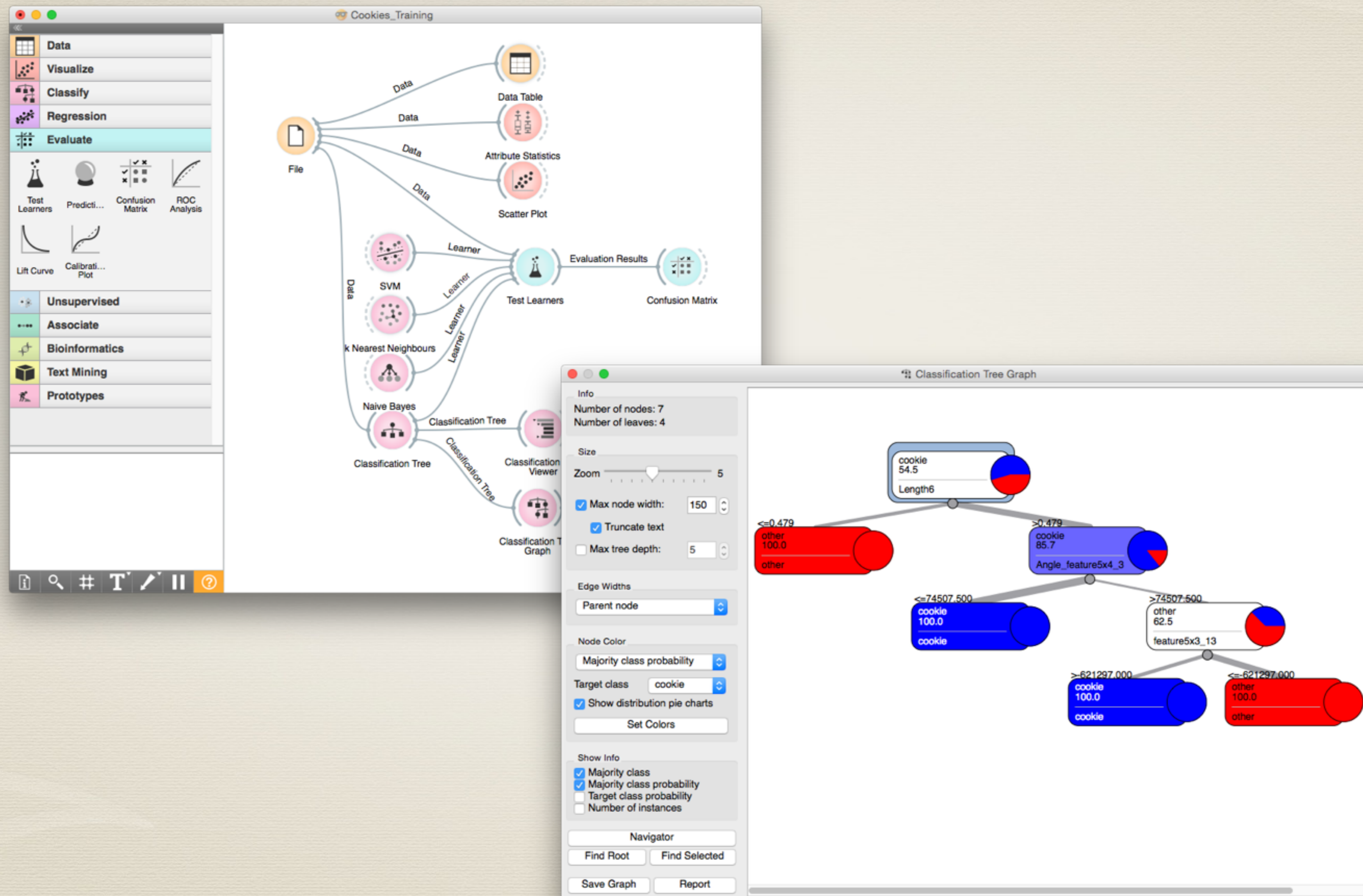
Snack Watcher Monolith



Snack Watcher



Snack Classifier



Snack Trainer

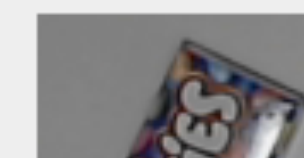
Snack Watcher

[LINKS](#)[CALIBRATE](#)[SNAP](#)[TEACH](#)

HELP!

Help us teach Marvin! Sure, he's a robot. But he isn't always that smart...

So how can you help? Simple. In the drop-down lists below, just select the category that best describes the object next to it. With your help, Marvin can learn what snacks look like, and he'll give us more accurate snack reports in the future!

[RELOAD IMAGES](#)

Snack Channel

The Jonah Group

Benny Cheung

CHANNELS (38)

chatops

chatops_dev

snack

tech-reading

DIRECT MESSAGES (76)

slackbot

Slack

#snack

16

Search

@

☆

⋮

September 30th



Marvin Bot BOT 3:14 PM

NEW SNACKS DETECTED! (15 snacks left)

http://snack.anaker.com:8888/static/images/snack-2015_09_30-15_10_50/blob_images/06-img-marked.png (307KB) ▾



October 2nd



Marvin Bot BOT 9:25 AM

WARNING: No snacks detected! Please restock. (0 snacks left)



Marvin Bot BOT 11:56 AM ☆

Show message actions

😊

🔗

⋮

+

😊

From Monolith to Microservices

- * Build a decoupled monolith first
- * Iterate in finding the right boundaries
- * Transit to microservices if needed

So, here's the place
in the sky where we
store humanity's
largest numbers.

Sir, what's
in 3rd place?



HUMANITY'S LARGEST						
Drops of water in						
1 ST	8	7	4	9	1	3
Grains of sand						
2 ND	7	9	4	9	3	6

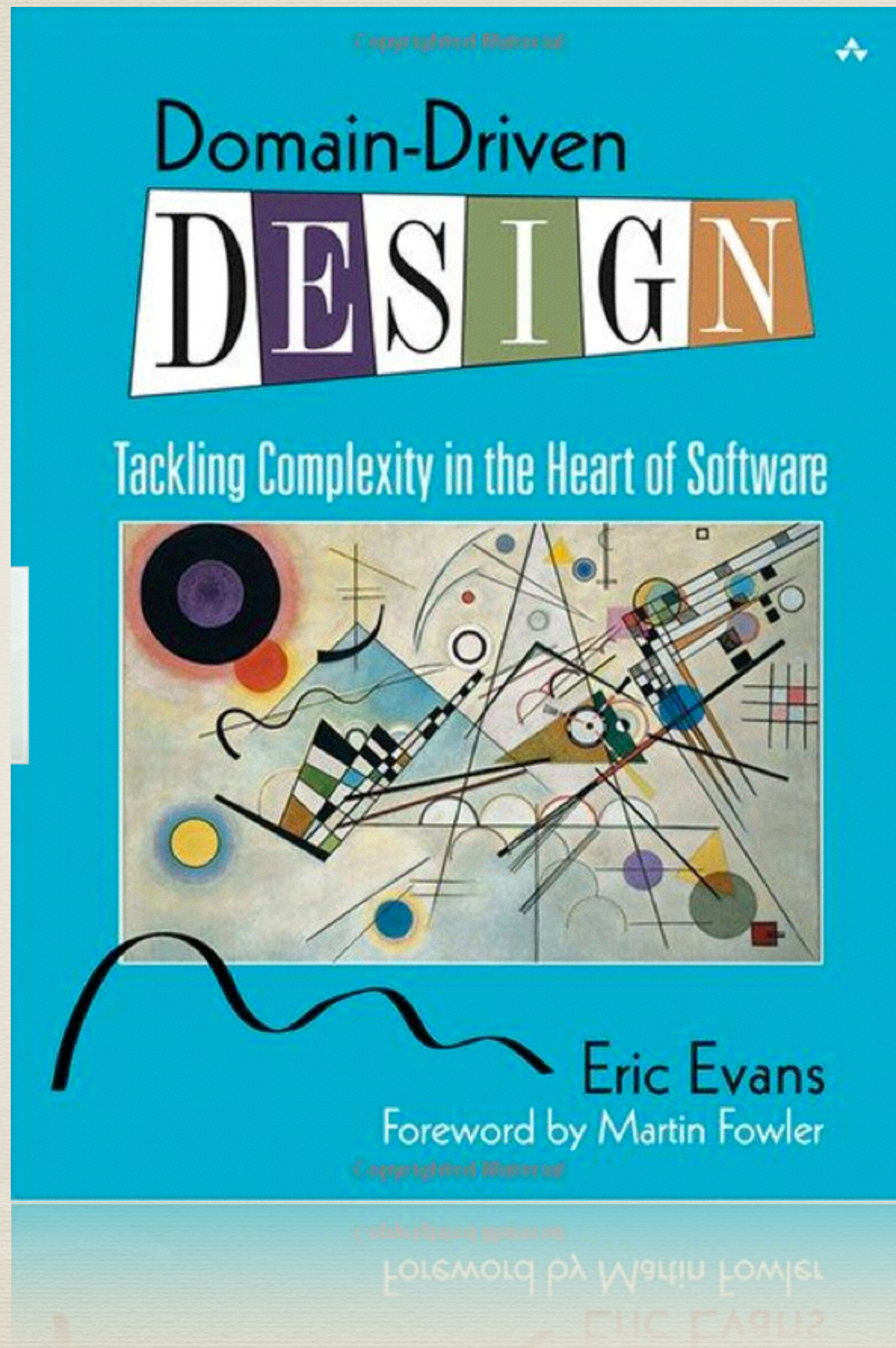
Let me check... Here
it is: Articles that
say Microservices



HUMANITY'S LARGEST						
Grains of Sand						
2 ND	7	9	4	9	3	6
Articles that say						
3 RD	7	6	9	8	1	5

Daniel Stori {turnoff.us}

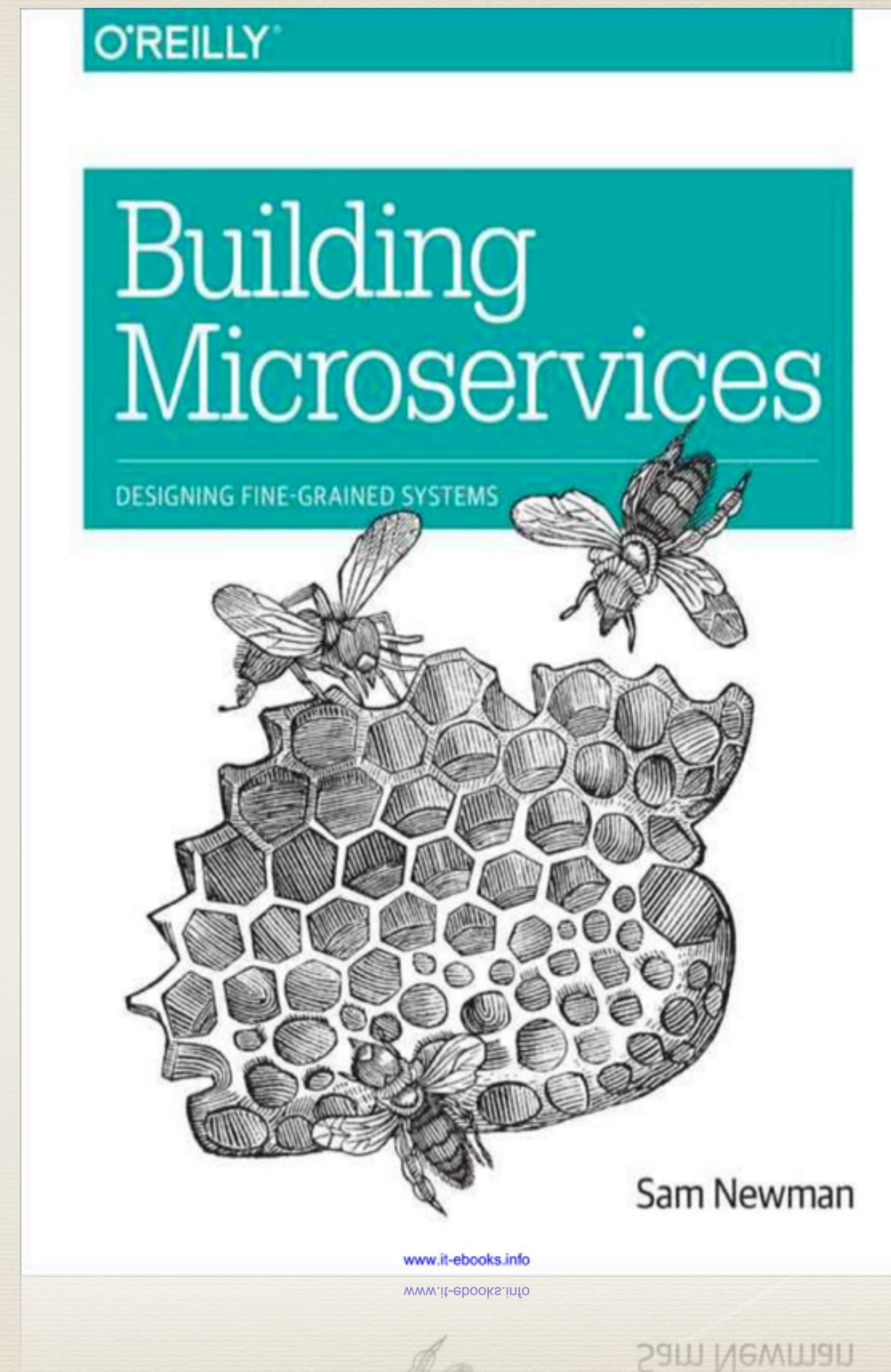
Picture Credit: Daniel Stor



Bounded Context

a specific responsibility
enforced by explicit
business boundaries

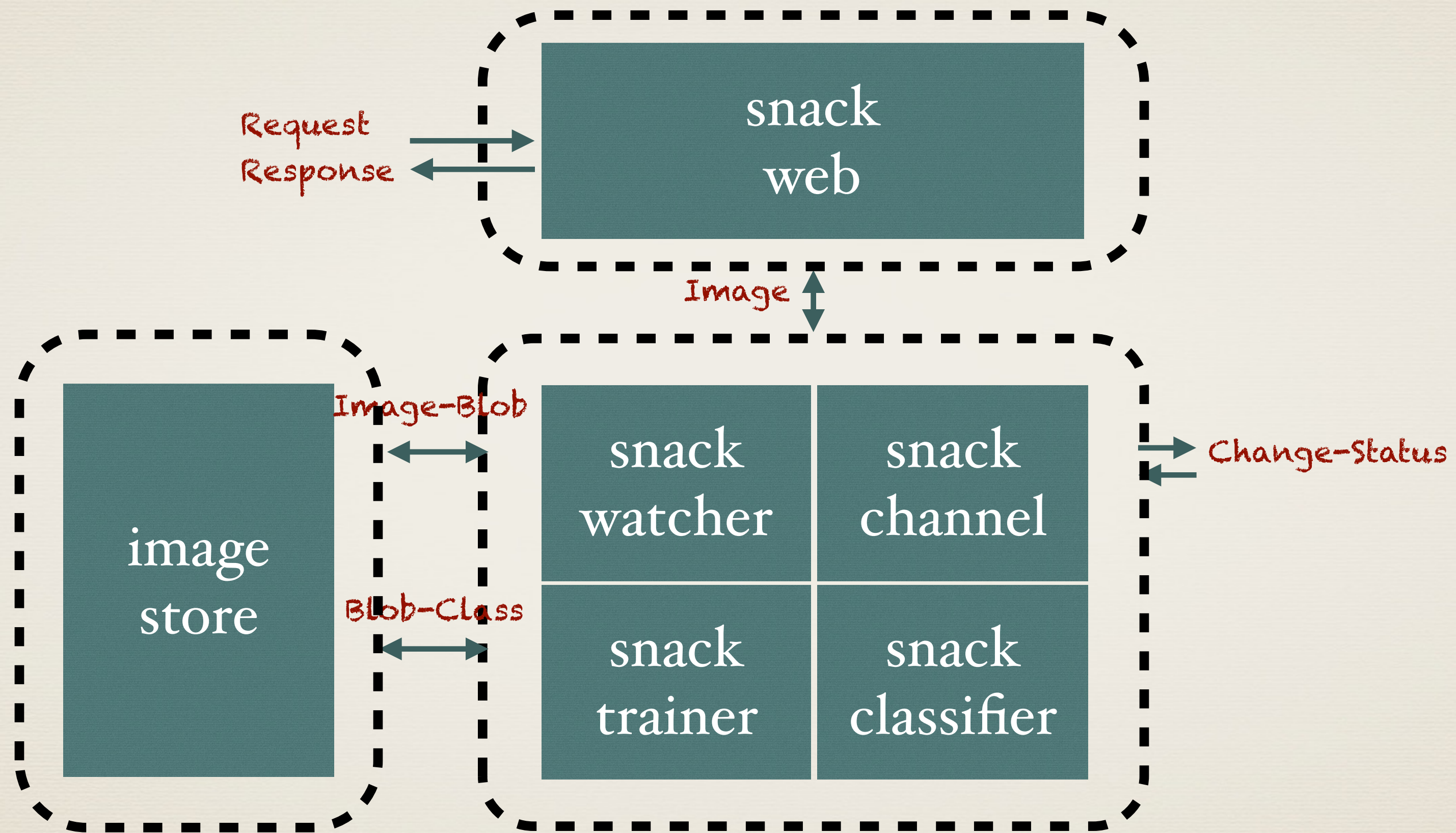
Small **Autonomous**
services that **work**
together, modelled
around a **business**
domain



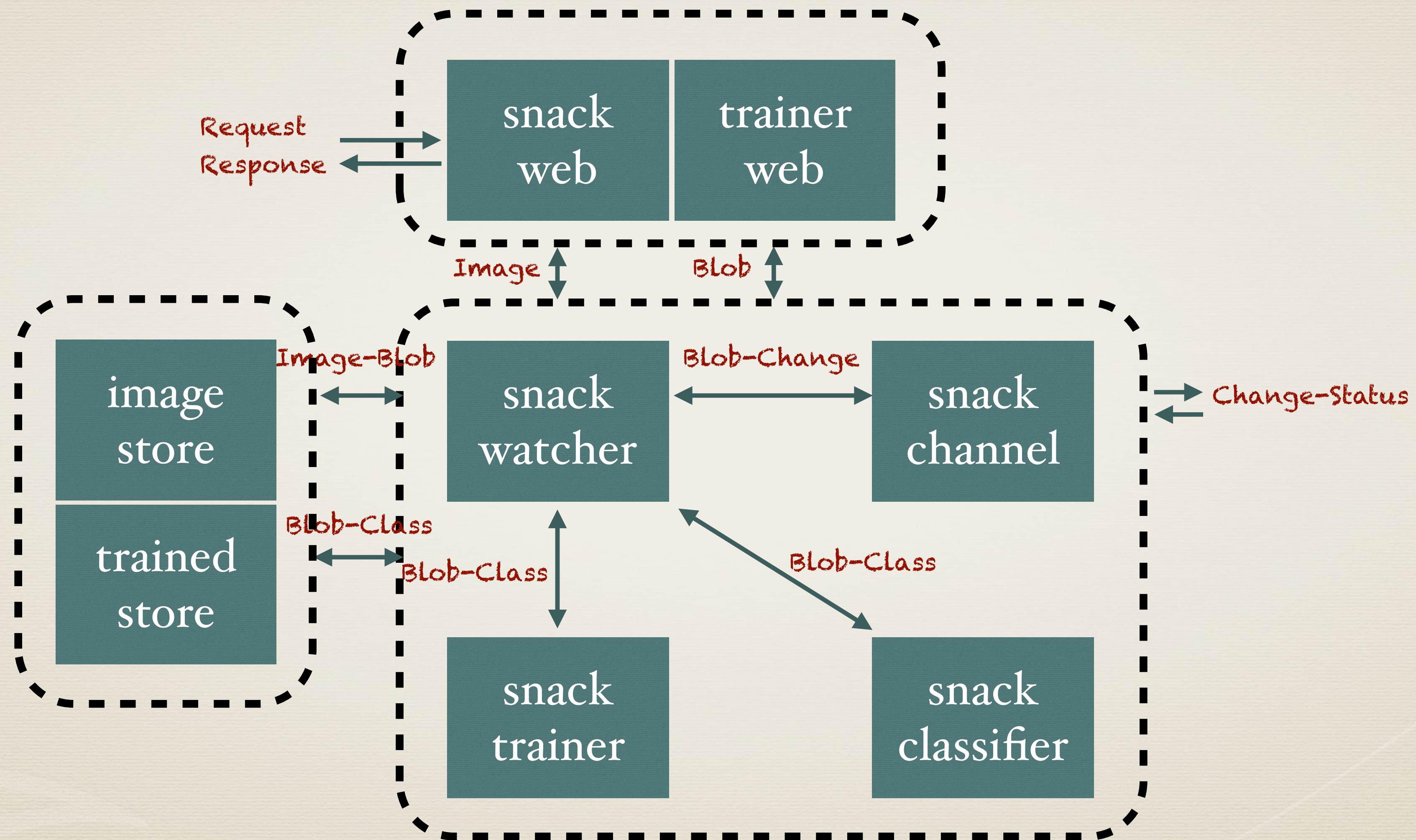
Design Principles

- * Business boundaries
- * Single responsibility principle
- * Encapsulation
- * Strong interfaces
- * Use ubiquitous language

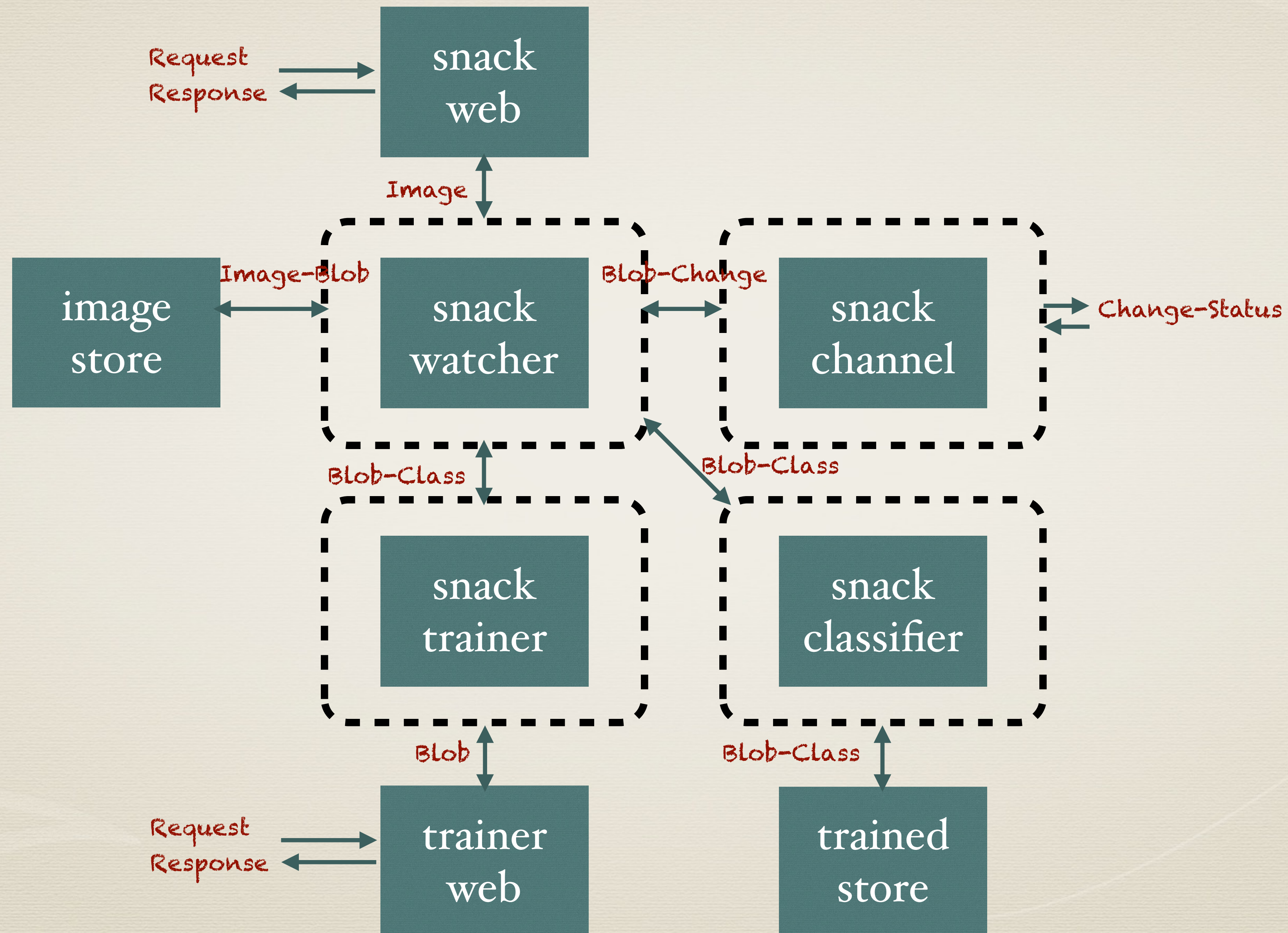
Snack Watcher Monolith



Snack Watcher Mono-Service



Snack Watcher Microservices



Mircroservices Friendship 101

2. I take
picture, make
and classify
blobs

4. I shall
reduce the
export info to
fit you

6. call me with
'snacks'



Snack
Watcher



Hubot

1. I know how
to talk to
slack channel

3. I want to
show snack,
snack counts

5. how can I
call you ?

Mircroservices

Dating 201

8. I use HTTP & JSON data

10. Call me at <http://snackwatcher/snacks>

12. That's a deal



Snack
Watcher



Hubot

7. Let's agree on protocol & data format

9. I like RESTful API

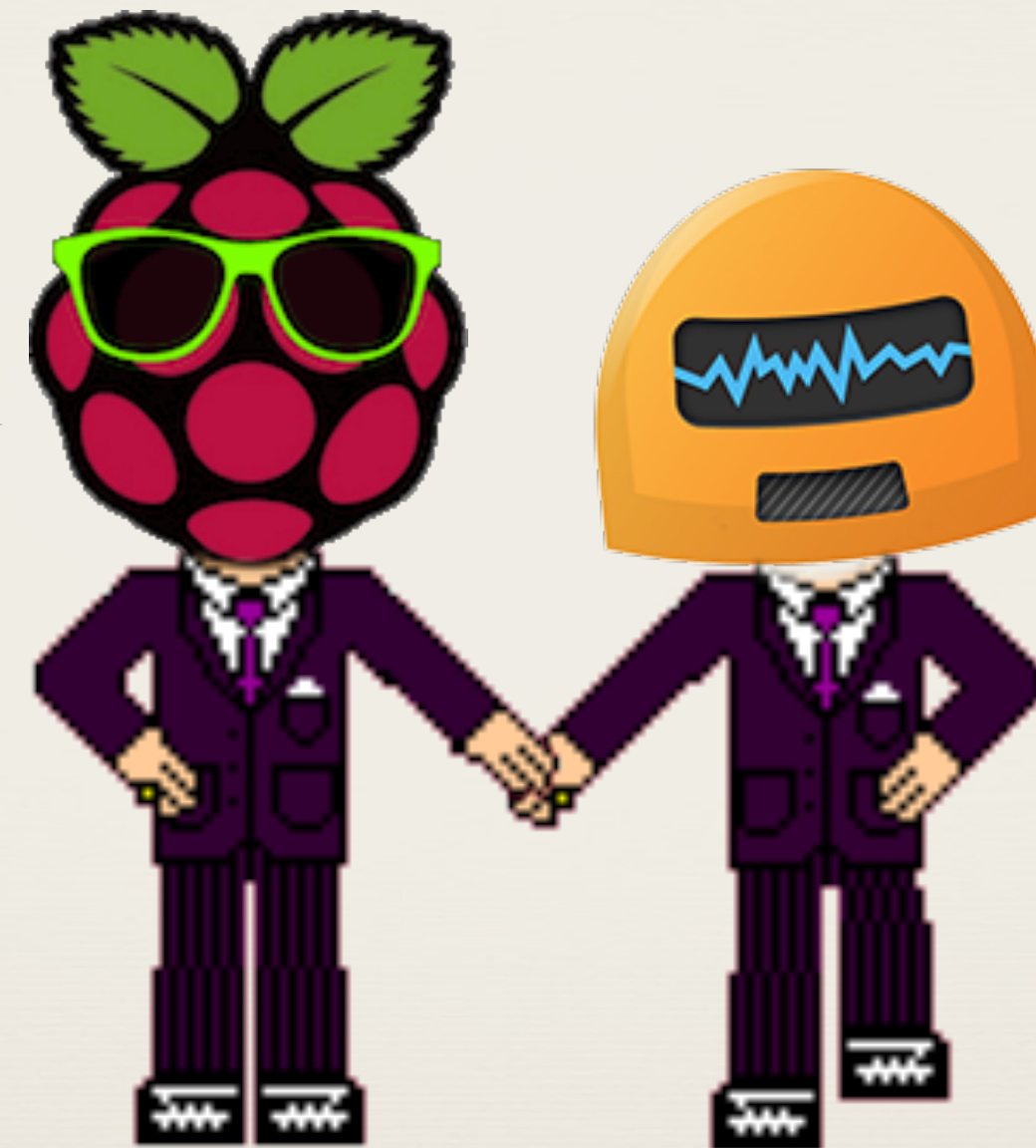
11. I expect {
image: <url>,
count: <total>}

Mircroservices Marriage 301

13. Hey, you want snack's changes info?

15. I can give you previous & current states

17. that's version 2 will come 2 days later



Snack
Watcher

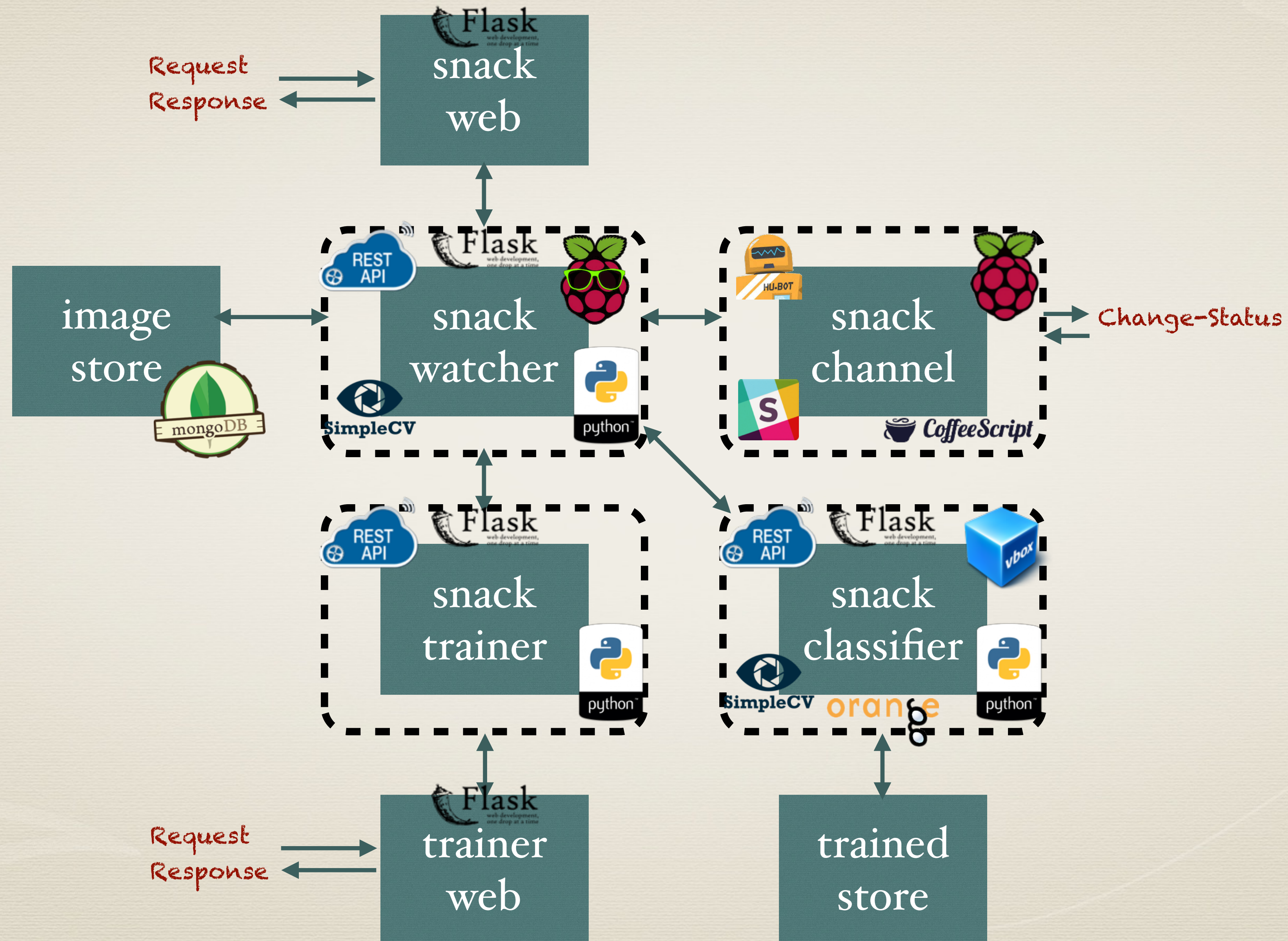
Hubot

14. Oh yes, but I don't have states memory

16. Cool, I can tell state changes

18. I shall switch over version 2!

Snack Watcher Technologies & Deployment





Summary

- * Watching snack is fun
- * Decomposing system into microservices
 - * do one business thing well
 - * clear boundaries
 - * protected by strong interfaces
 - * communicate with simple and consistent rules
- * Reusing snack watcher components

