

WiFi LIVE ONLINE TRAINING

Minimum Viable Machine Learning

Graduating your models out of Jupyter and into Production

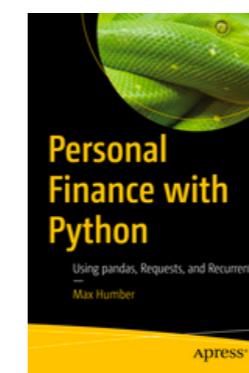
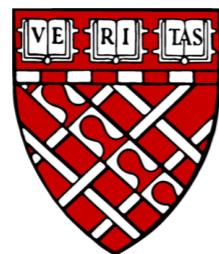
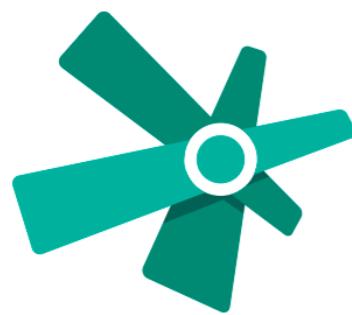


github.com/maxhumber/MVML

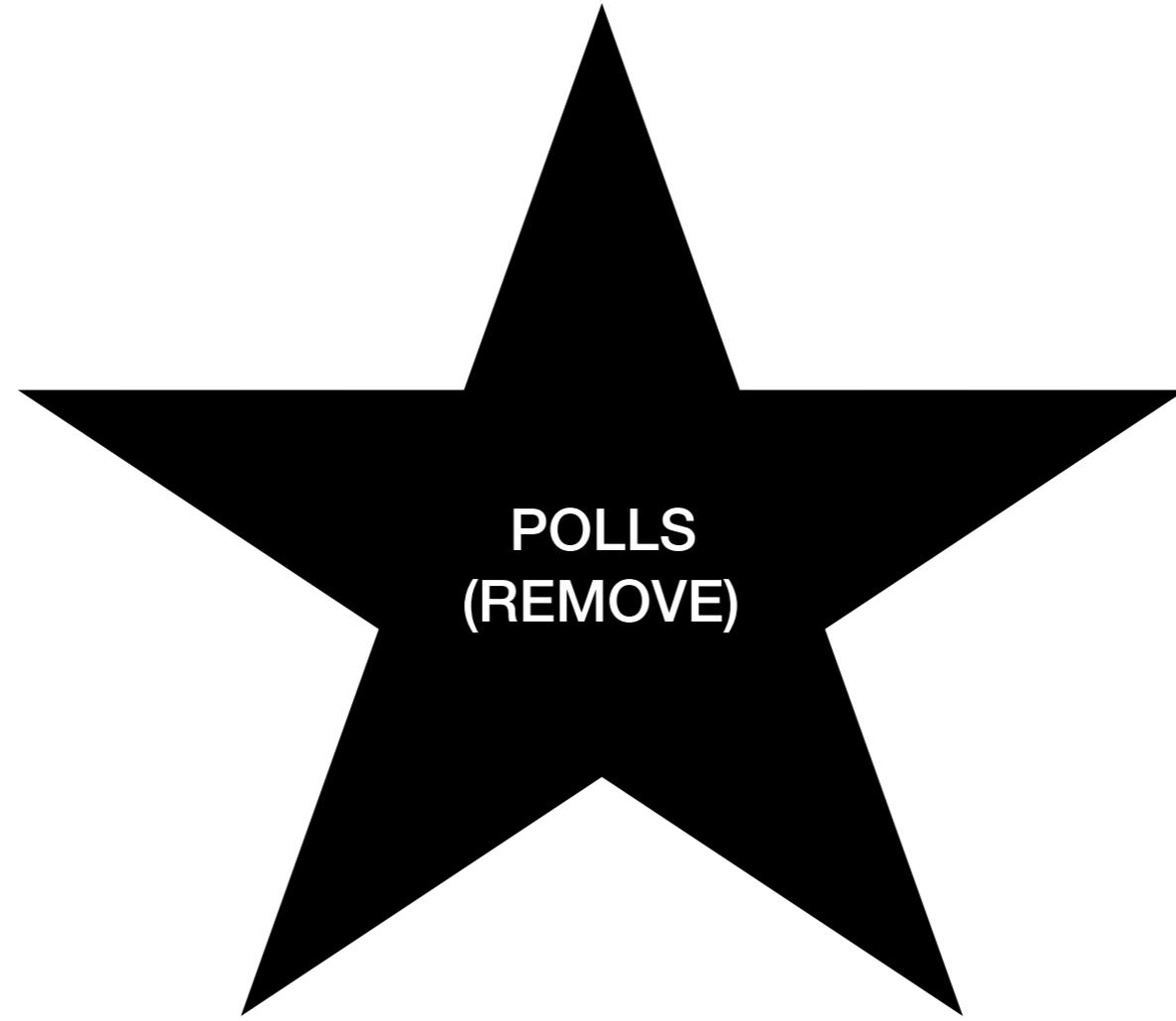
November 11, 2019

12:00pm – 2:00pm EDT

\$ whoami







1. Have you ever done any front-end web development?
2. Have you ever deployed a machine learning model?

0

Data





[Code](#)[Issues 0](#)[Pull requests 0](#)[Security](#)[Insights](#)[Settings](#)

 gazpacho is a web scraping library <https://www.gazpacho.xyz>

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Branch: master ▾

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 maxhumber small readme updates

Latest commit dc2d973 9 days ago

 .github/ISSUE_TEMPLATE

fix empty tag handling

11 days ago

 gazpacho

paint it black

11 days ago

 images

group test and speed test

23 days ago

 tests

paint it black

11 days ago

 .gitignore

group test and speed test

23 days ago

 .travis.yml

enable travis tagging

18 days ago

 CHANGELOG.md

fix empty tag handling

11 days ago

 CNAME

gazpacho.xyz

21 days ago

 CONTRIBUTING.md

minor edits

14 days ago

 LICENSE

Initial commit

28 days ago

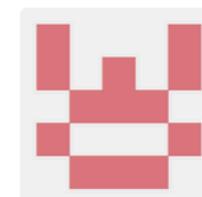
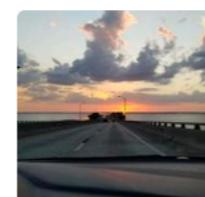
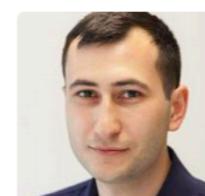
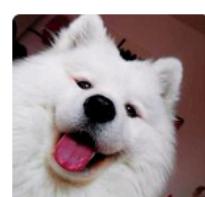
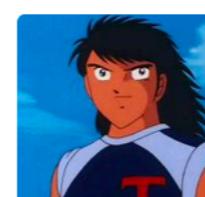
 Makefile

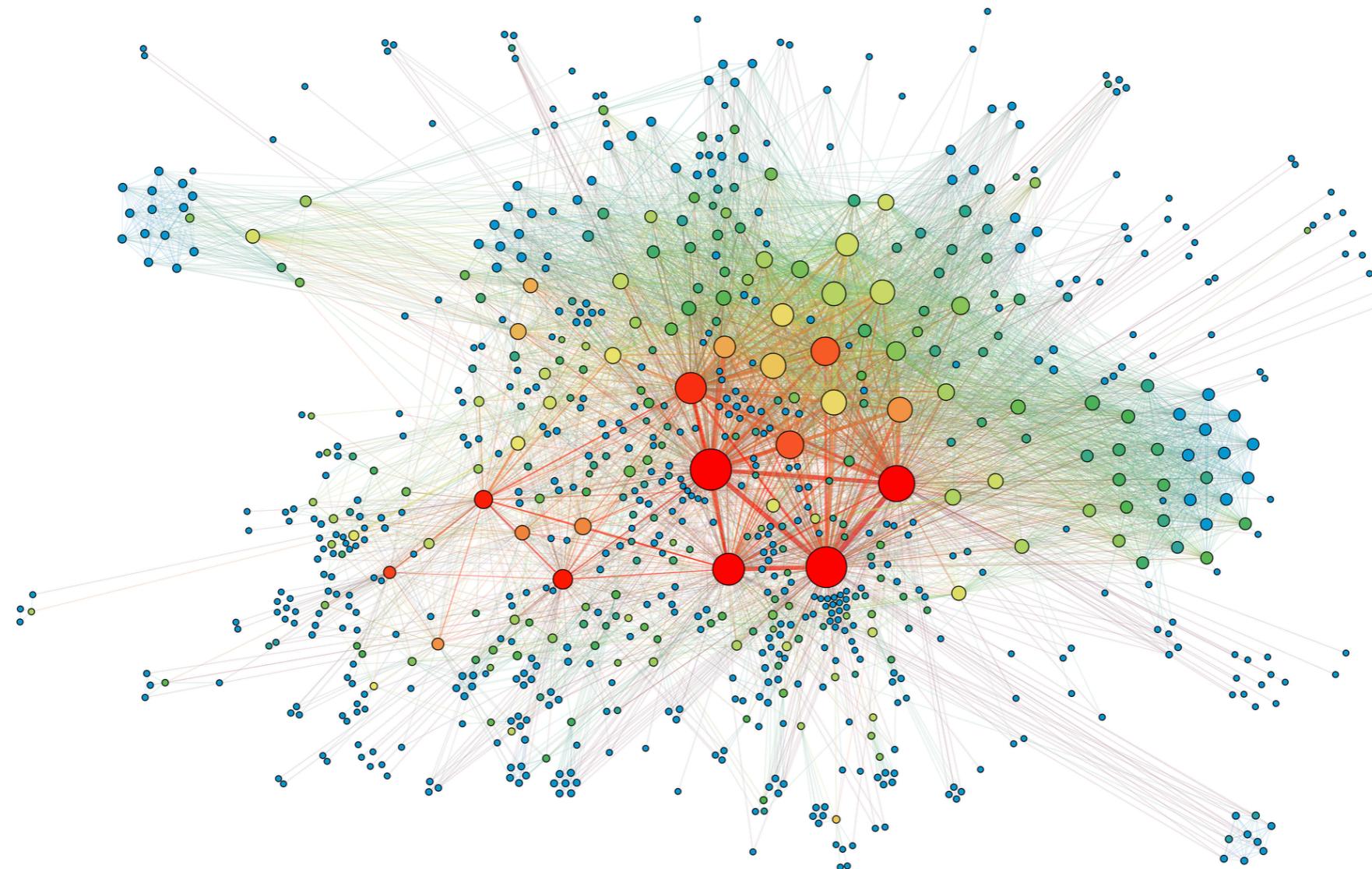
gazpacho.xyz

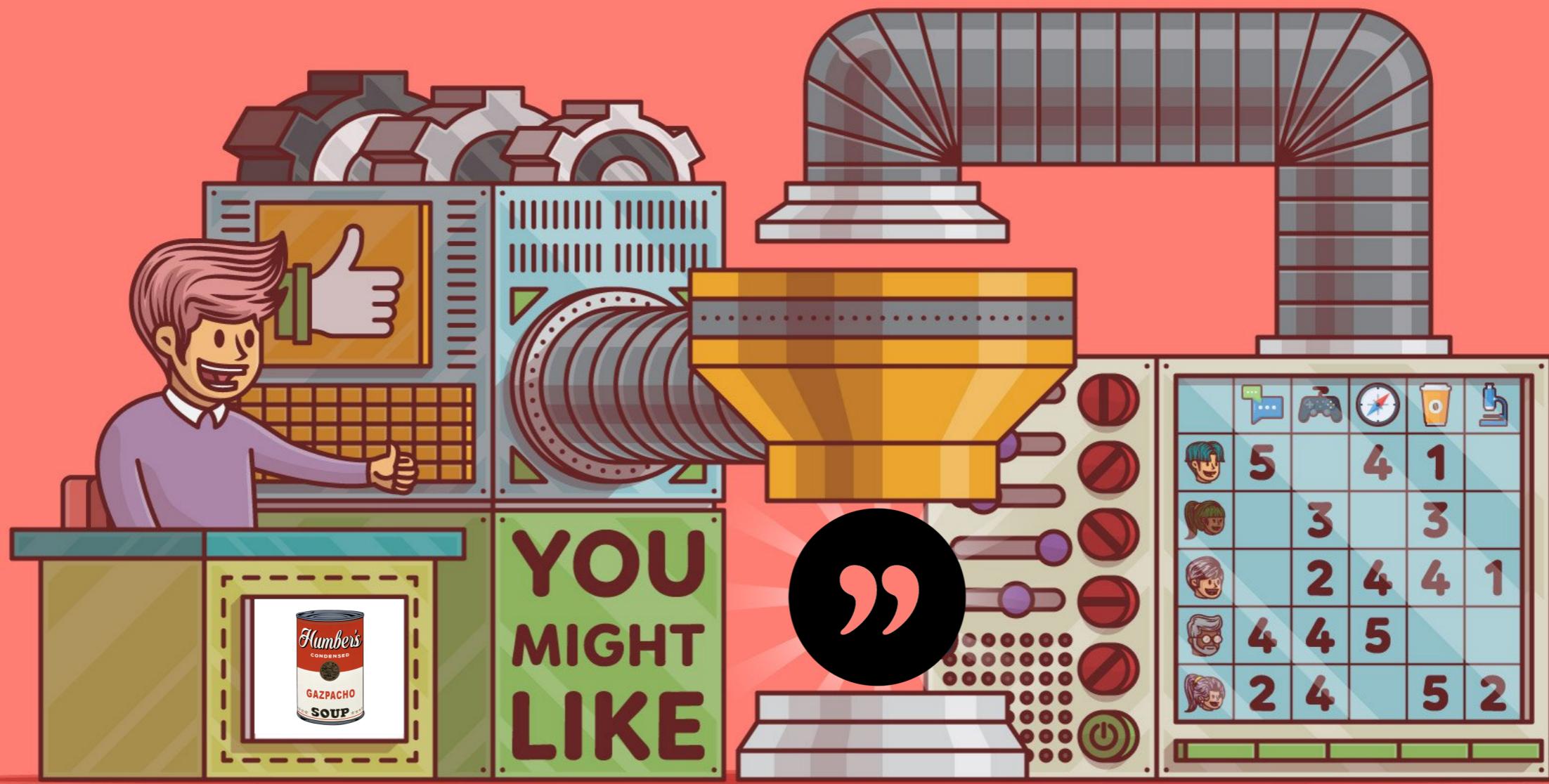
21 days ago

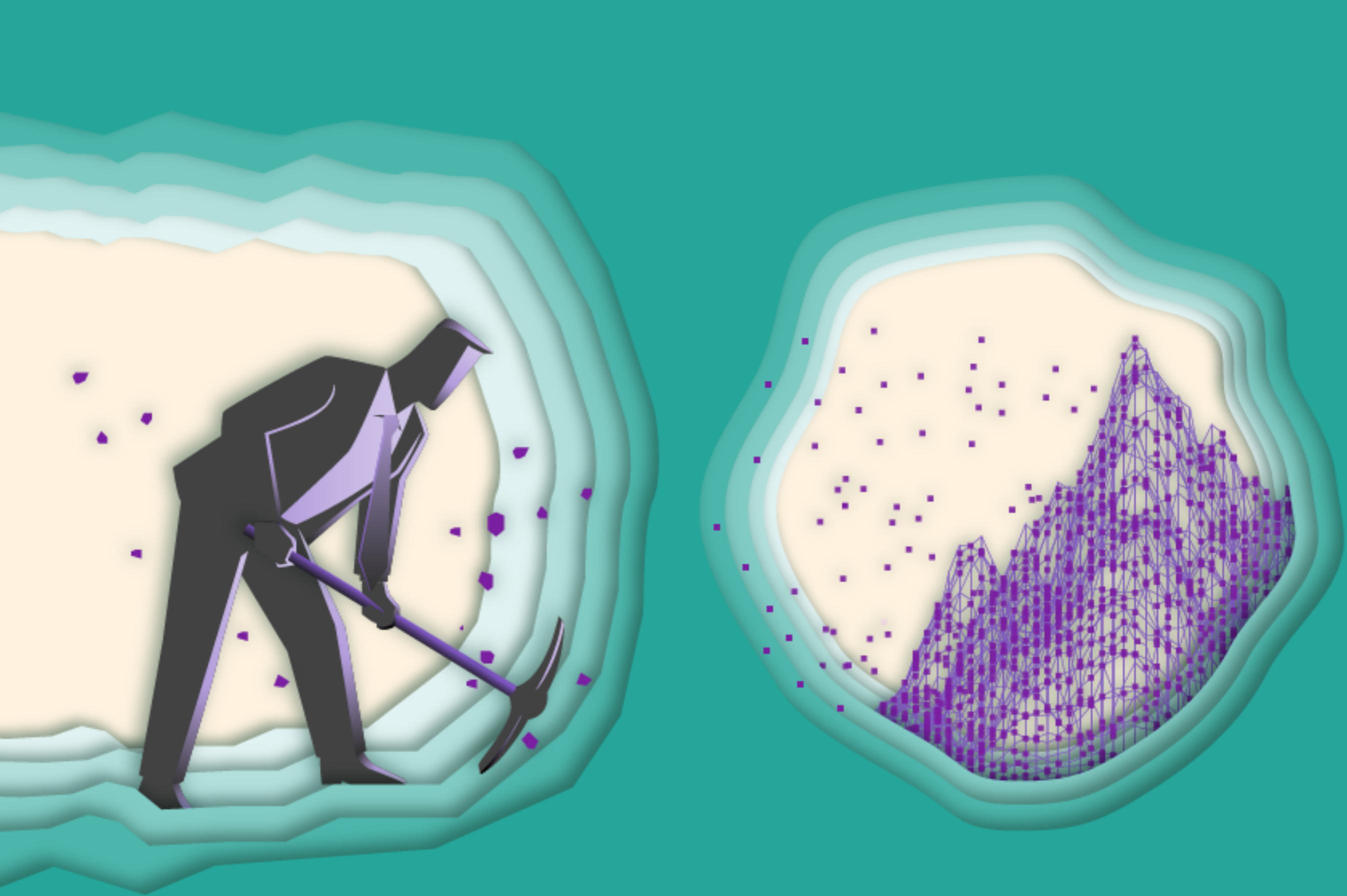
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Stargazers

[All 164](#)[You know 1](#)**DropB3ar**[Joined on Oct 6, 2017](#)[Follow](#)**Julian-Nash**[UK](#)[Follow](#)**RhetTbull**[USA](#)[Follow](#)**marcaube**[Québec, Canada](#)[Follow](#)**devsetgo**[Clearwater, FL](#)[Follow](#)**kolasky1977**[Joined on Jul 11, 2017](#)[Follow](#)**CircleOnCircles**[Bangkok](#)[Follow](#)**liova99**[Munich](#)[Follow](#)**dwkrghm**[Joined on Feb 19, 2019](#)[Follow](#)**h1nk**[3F2A 0189 65C4 954B](#)[Follow](#)**marc-benet**[Elements](#)[Follow](#)**shoegazerstella**[@Musixmatchdev](#)[Follow](#)**himmijimmy**[Joined on Jun 9, 2018](#)[Follow](#)**xsteadfastx**[Wolfsburg](#)[Follow](#)**smarlowucf**[@SUSE](#)[Follow](#)









data/stars_scrape.py

A close-up photograph of a silver spoon filled with four yellow dumplings swimming in a rich, brown gravy. The spoon is angled downwards, and the background is blurred, showing more of the same dish.

data

1

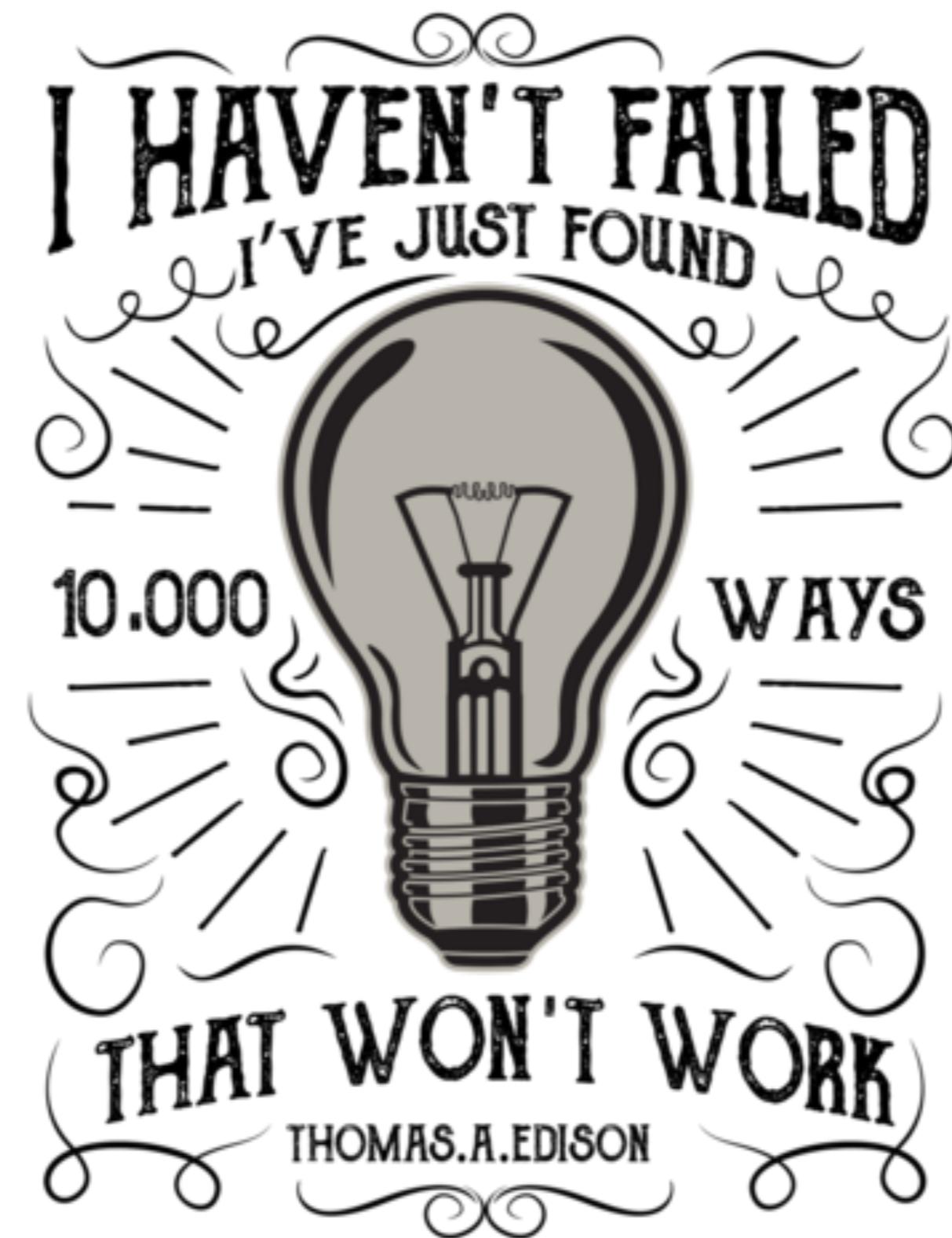
Develop



model/model.ipynb









pip install mummify

**MOVE
FAST AND
BREAK
THINGS**

TRY A BUNCH OF





mummify/mummy_model.ipynb



EXERCISE

exercises/try_fast.py

Q&A

2

Design



Create a file called hello.py

```
from flask import Flask
app = Flask(__name__)

@app.route("/")
def hello():
    return "Hello World!"

if __name__ == "__main__":
    app.run()
```

Finally run the web app using this command:

```
$ python hello.py
* Running on http://localhost:5000/
```

Open <http://localhost:5000/> in your webbrowser, and “Hello World!” should appear.

Create a file called hello.py:

```
from flask import Flask
app = Flask(__name__)

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def hello():
    return "Hello World!"

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    app.run()
```

Finally run the web app using the command:

```
$ python hello.py
* Running on http://localhost:5000
```

Open <http://localhost:5000> in your browser. You should see "Hello World!" appear.

untitled - Paint

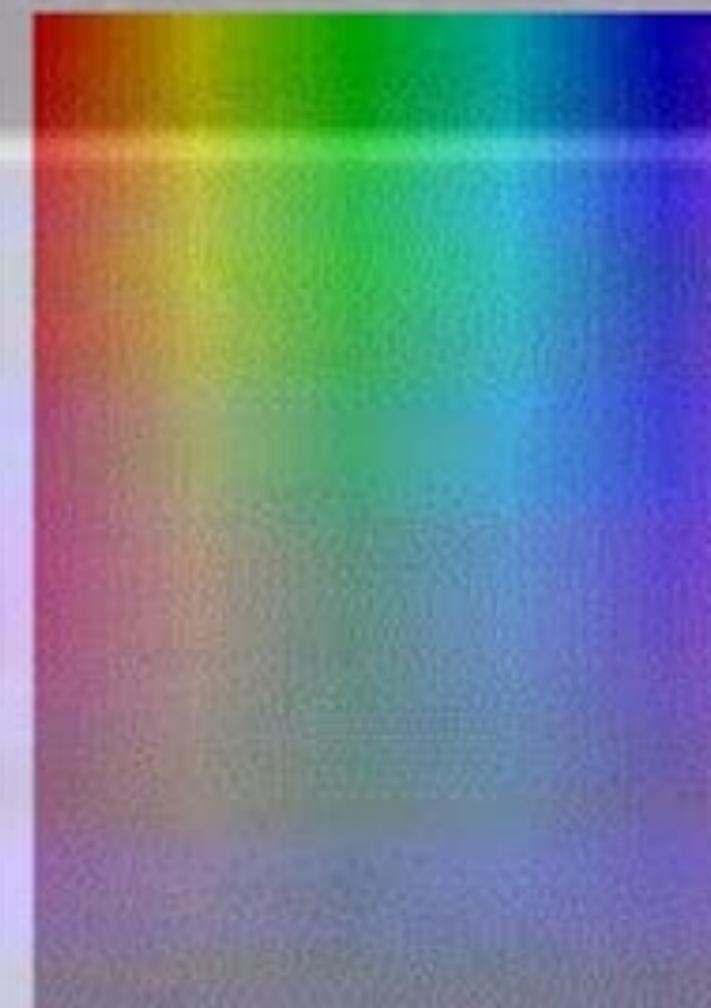


PaintWinCE

File Edit View Image Options Help



raised by
the internet



Tutorial 1



CONGRATULATIONS!

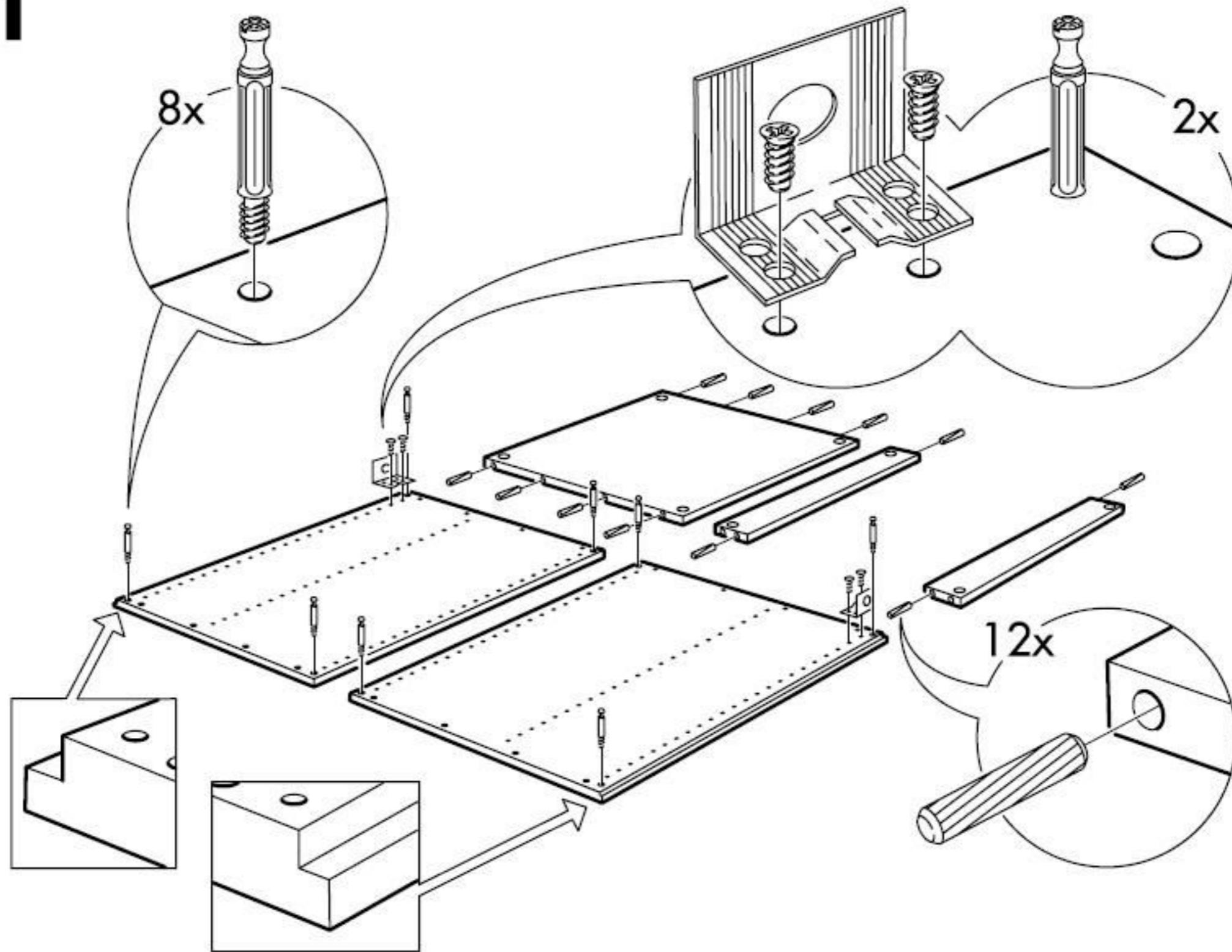


This IS NOT A JOKE!

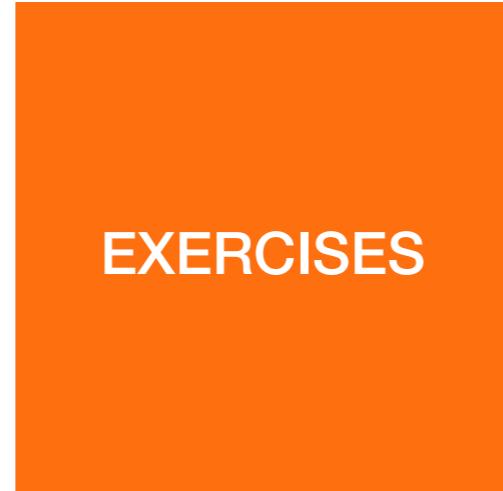






1





EXERCISES

exercises/fmodel.py

Q&A

3

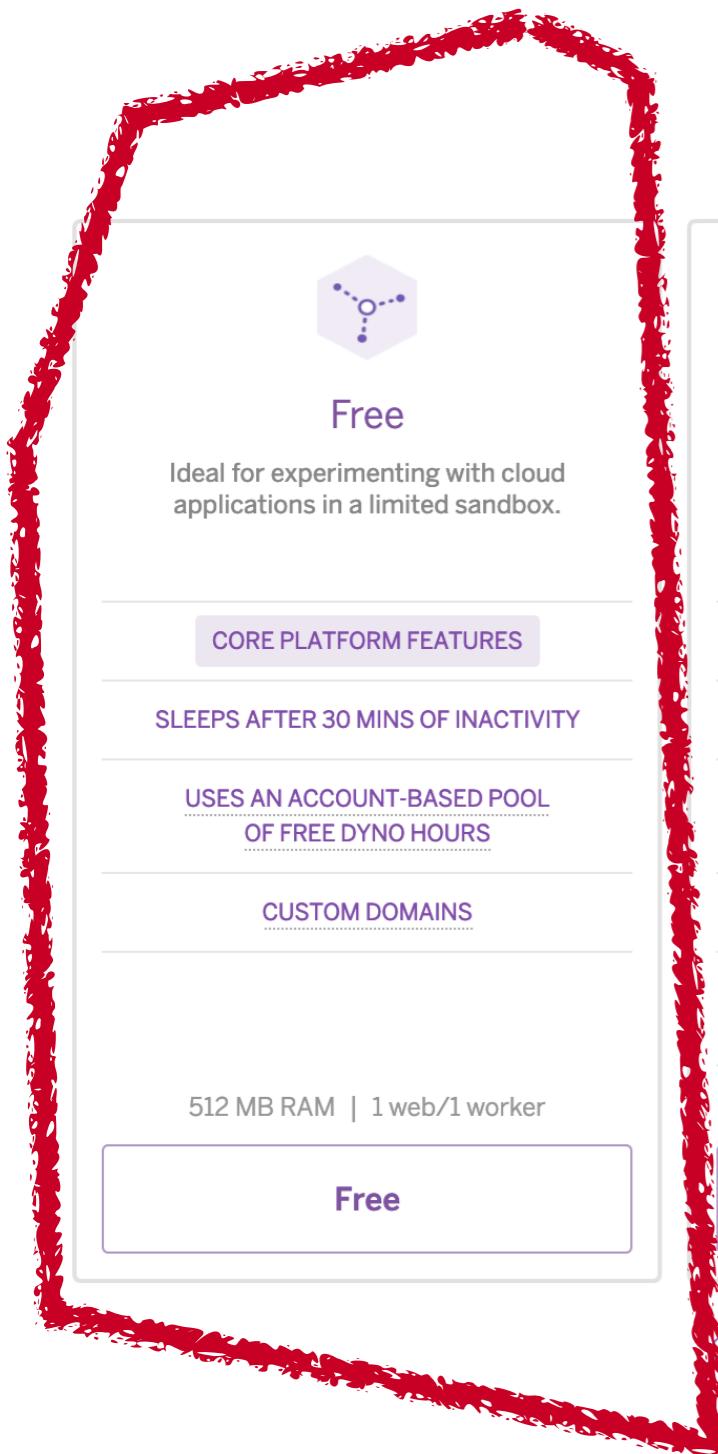
Deploy





HEROKU

CITY OF
GRANBO



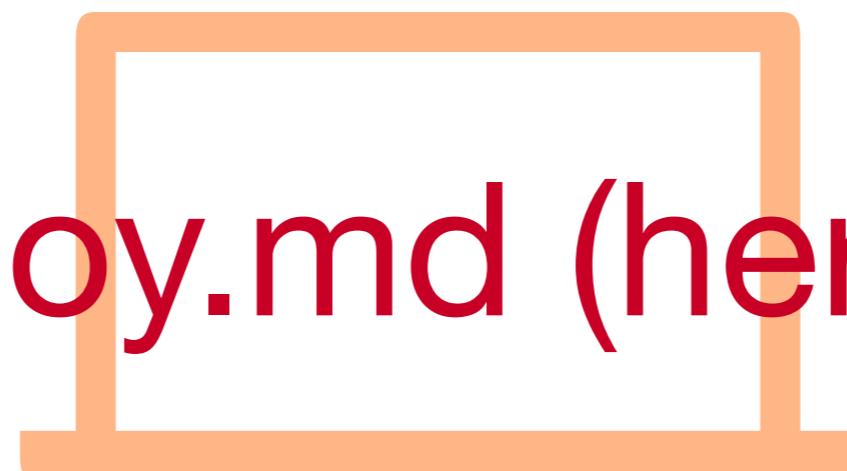
Plan	Core Platform Features	Memory & Process Types	Price
Free	CORE PLATFORM FEATURES SLEEPS AFTER 30 MINS OF INACTIVITY USES AN ACCOUNT-BASED POOL OF FREE DYNOS CUSTOM DOMAINS	512 MB RAM 1 web/1 worker	Free
Hobby	CORE PLATFORM FEATURES NEVER SLEEPS FREE SSL & AUTOMATED CERTIFICATE MANAGEMENT FOR CUSTOM DOMAINS APPLICATION METRICS MULTIPLE WORKERS FOR MORE POWERFUL APPS	512 MB RAM 10 Process Types	\$7 per dyno/month <small>prorated to the second</small>

PROFESSIONAL	
Standard <small>1X 2X</small>	Performance <small>M L</small>
Enhanced visibility, performance, and availability for powering your professional applications.	Superior performance when it's most critical for your super scale, high traffic apps.

ALL HOBBY FEATURES +	ALL STANDARD FEATURES +
SIMPLE HORIZONTAL SCALABILITY	MIX WITH STANDARD 1X, 2X DYNOS
THRESHOLD ALERTS	DEDICATED
PREBOOT	AUTOSCALING
LANGUAGE RUNTIME METRICS	2.5GB OR 14GB RAM
512MB OR 1GB RAM	∞ Process Types

	\$25 - \$500 per dyno/month <small>prorated to the second</small>
--	---

To start using a Professional plan, select the plan inside the Heroku Dashboard.



deploy.md (heroku)

LEVEL
UP!



Moisey Uretsky, Cofounder DigitalOcean

Originally Answered: What are the advantages and disadvantages of using heroku?

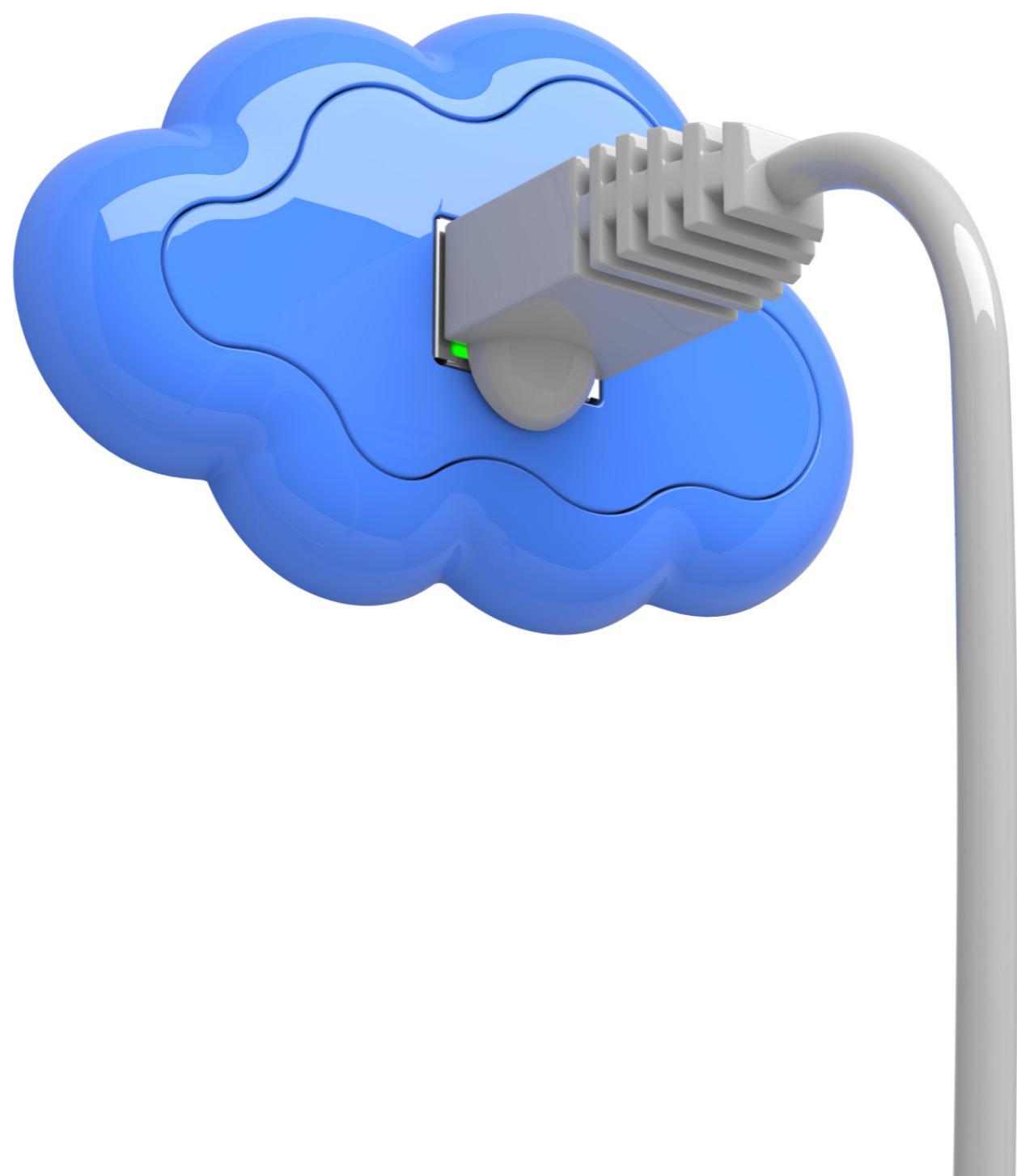
Advantages

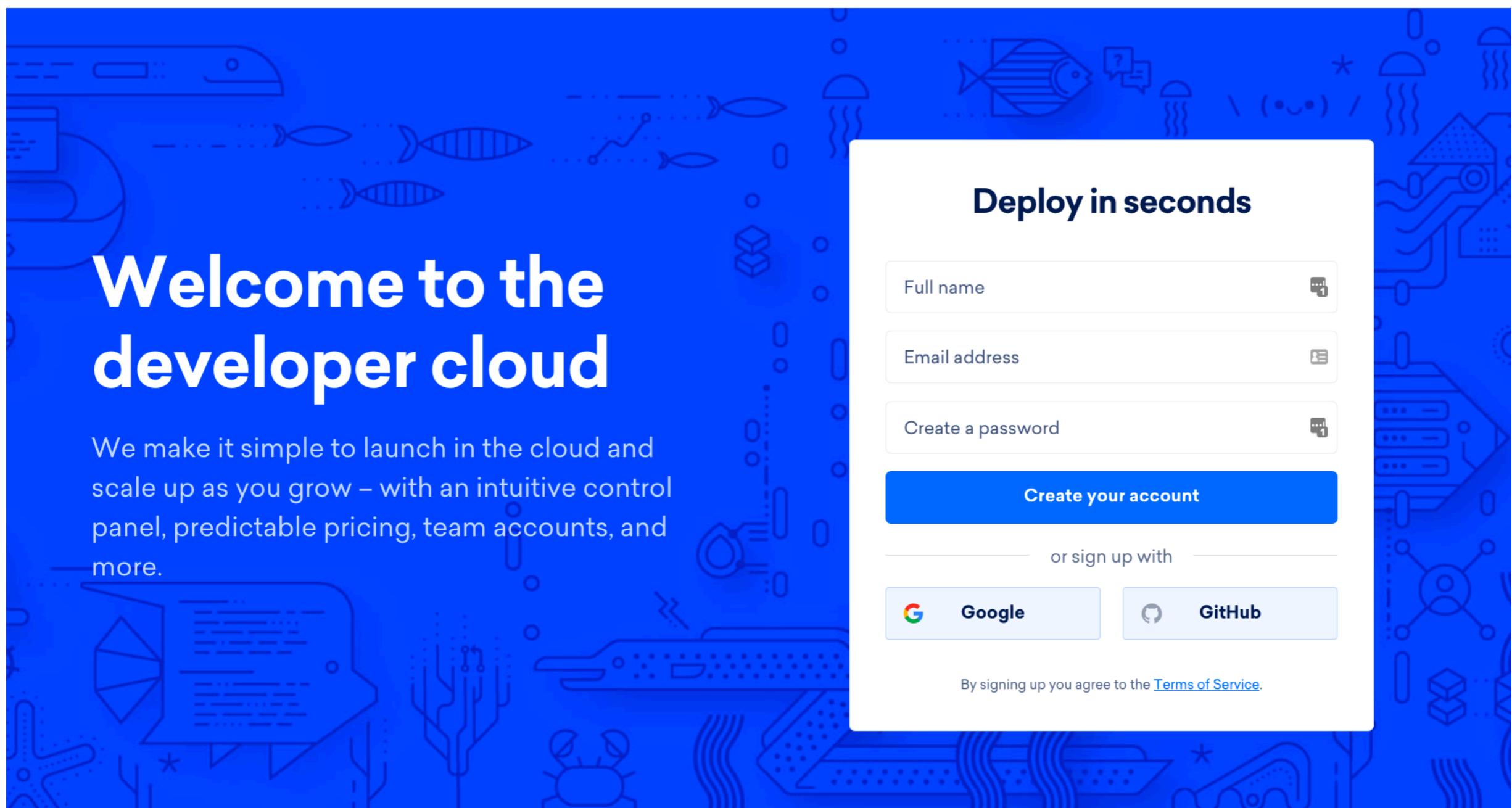
- Easy setup - as a PaaS you don't need to know how to install and configure Apache, nginx, unicorn, passenger, MySQL, Postgres etc
- Easier to scale initially - spin up more dynos, size up DBs etc
- Great plugin support for third party apps

Disadvantages

- Pricey - after the free tier the pricing is steep, you will pay literally 3x - 5x more than a comparable performing setup through an IaaS
- Performance - as highlighted by rap genius recently the switch away from being purely a Rails PaaS and the updates to the routing engine has worse performance which translates to more dynos and still higher costs
- Lock-In - since you aren't managing your infrastructure you can't move it to take advantage of savings
- Single point of failure - granted it happens rarely but it's there. Architecting around this on your own requires a lot of experience but you'll be glad once you get past the learning curve.

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Compute

Databases

Storage

Tools

Included services

Support

FAQs

⑥ Droplets

Droplets are virtual machines available in multiple configurations of CPU, memory and SSD.

SHARED CPU

DEDICATED CPU

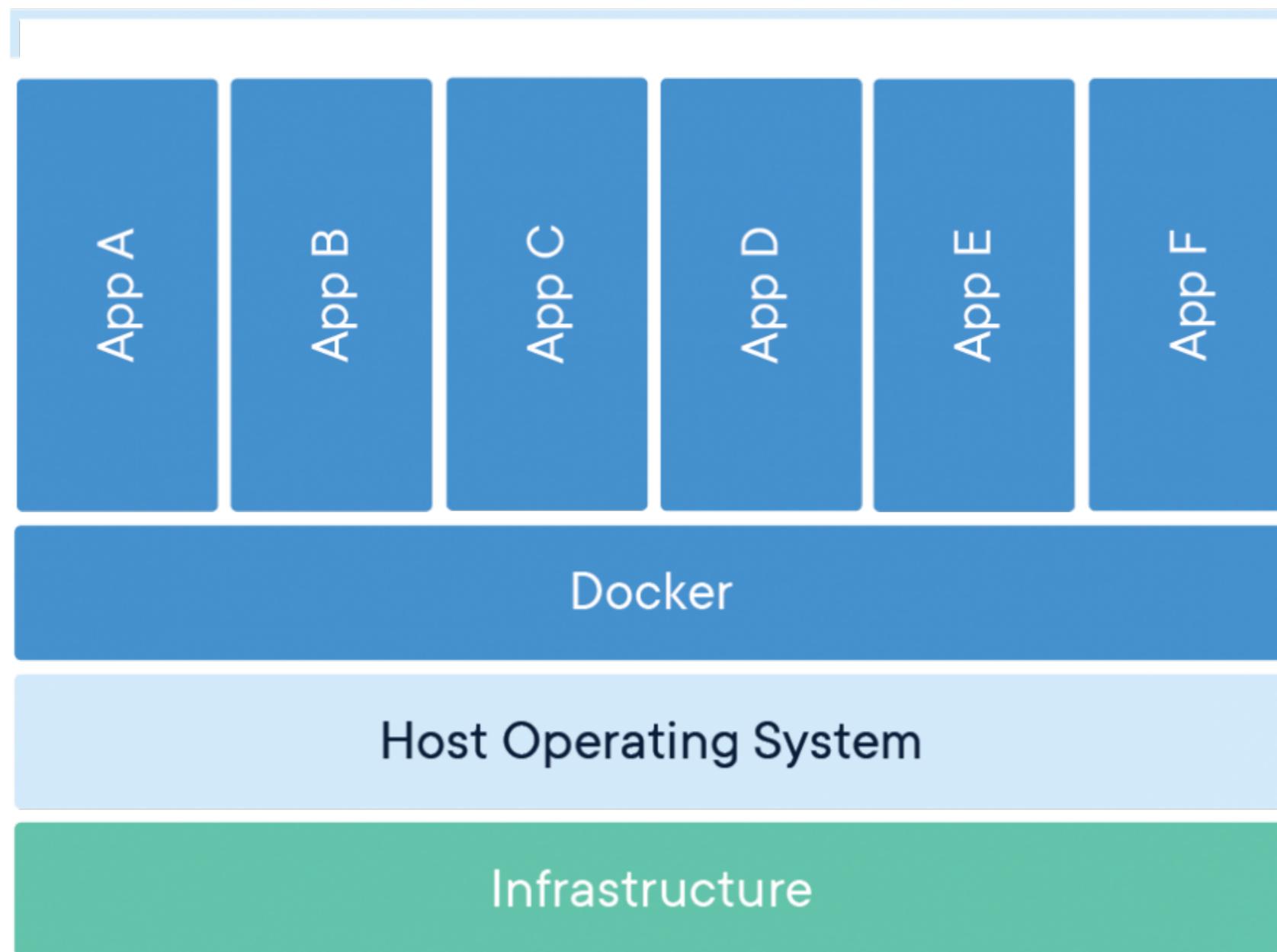
Standard	General Purpose	CPU-Optimized	Memory-Optimized <small>NEW</small>	
MEMORY	VCPUS	TRANSFER	SSD DISK	PRICE
1 GB	1 vCPU	1 TB	25 GB	\$5/mo \$0.007/hr
2 GB	1 vCPU	2 TB	50 GB	\$10/mo \$0.015/hr
3 GB	1 vCPU	3 TB	60 GB	\$15/mo \$0.022/hr





Getting started

Containerized Applications



deploy.md (digitalocean)



HOMEWORK

deploy.md playbook

Q&A

That's all Folks!

packages

MARC

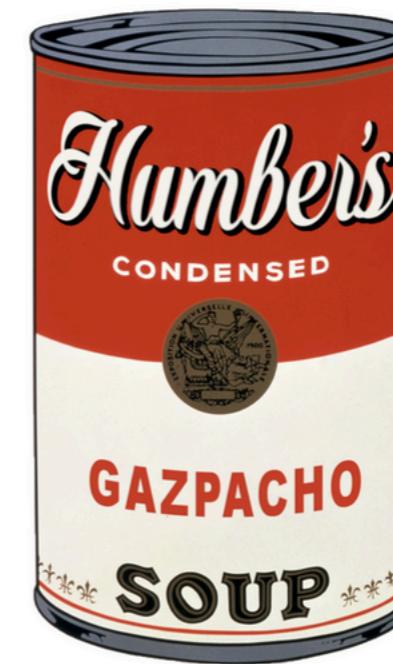
dependencies zero build passing pypi v2.0 downloads 3k

<https://github.com/maxhumber/marc>



dependencies zero build passing pypi v1.0.2 downloads 8k

<https://github.com/maxhumber/mummify>



scraper gazpacho dependencies 0 build passing pypi v0.8.1 downloads 2k

<https://github.com/maxhumber/gazpacho>

Press:

[PythonBytes](#) (Episode 152)

[Awesome Python](#)



December 6, 2019

Data Engineering for Data Scientists

Presented by Max Humber

74 SPOTS REMAINING

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