

bit.ly/vvvrt

# photos + algorithms



# #1 Pager

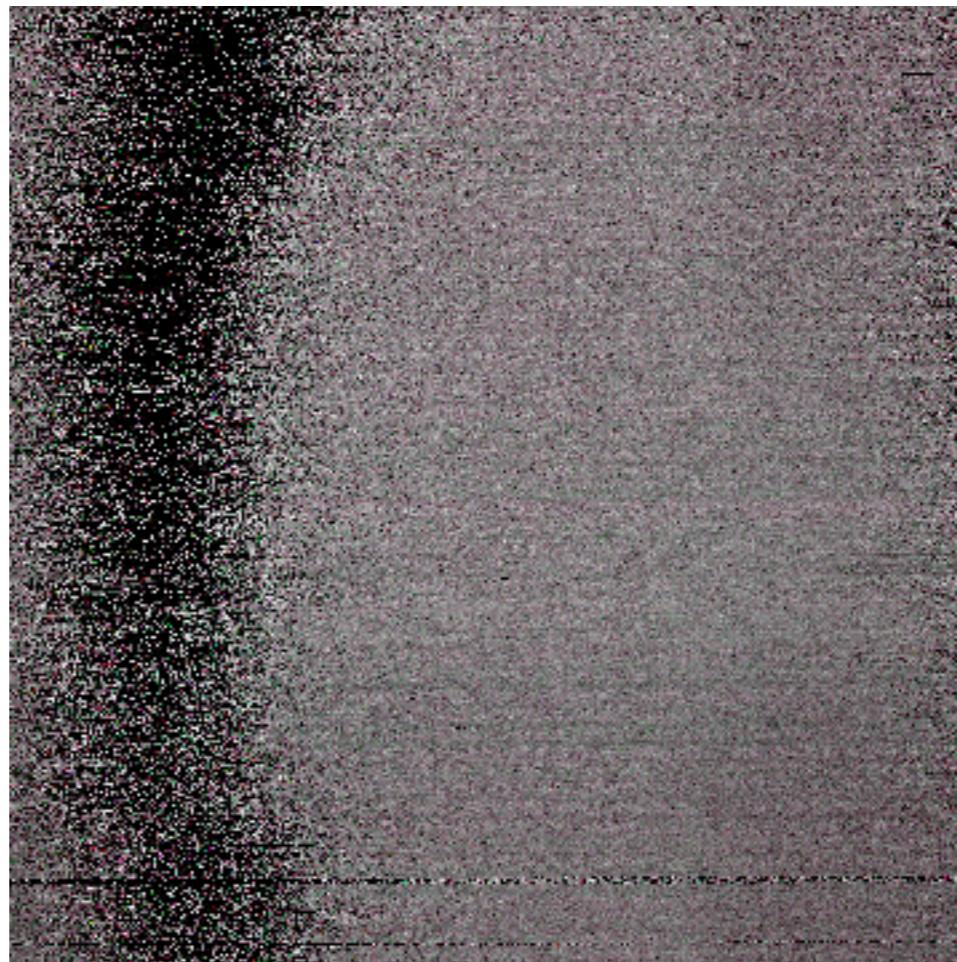
- 
- what: visualizing millions of ig & flickr vancouver photos
  - [github.com/rtanglao/<repo>](https://github.com/rtanglao/)
  - repo: algosplusphotosequalsart, rtgram, ig-ggmap, ig-r-leaflet
  - stack: ruby, R, HTML5, MongoDB, imagemagick, graphicsmagick
  - sermon: narrate your work & have mentors

# #thanks

OS X, BSD, Linux, C, POSIX, homebrew,  
emacs, find, xargs, xxd, Photoshop,  
IA Writer, ruby, bash, R, ggmap,  
ggplot2, leaflet, imagemagick,  
graphicsmagick, webshot, phantomJS,  
**R Studio, [zazzle.com](#), [artofwhere.com](#), git,**  
flickr, dropbox, github, js, Firefox,  
shape collage, Time Lapse Assembler,  
yoshirt

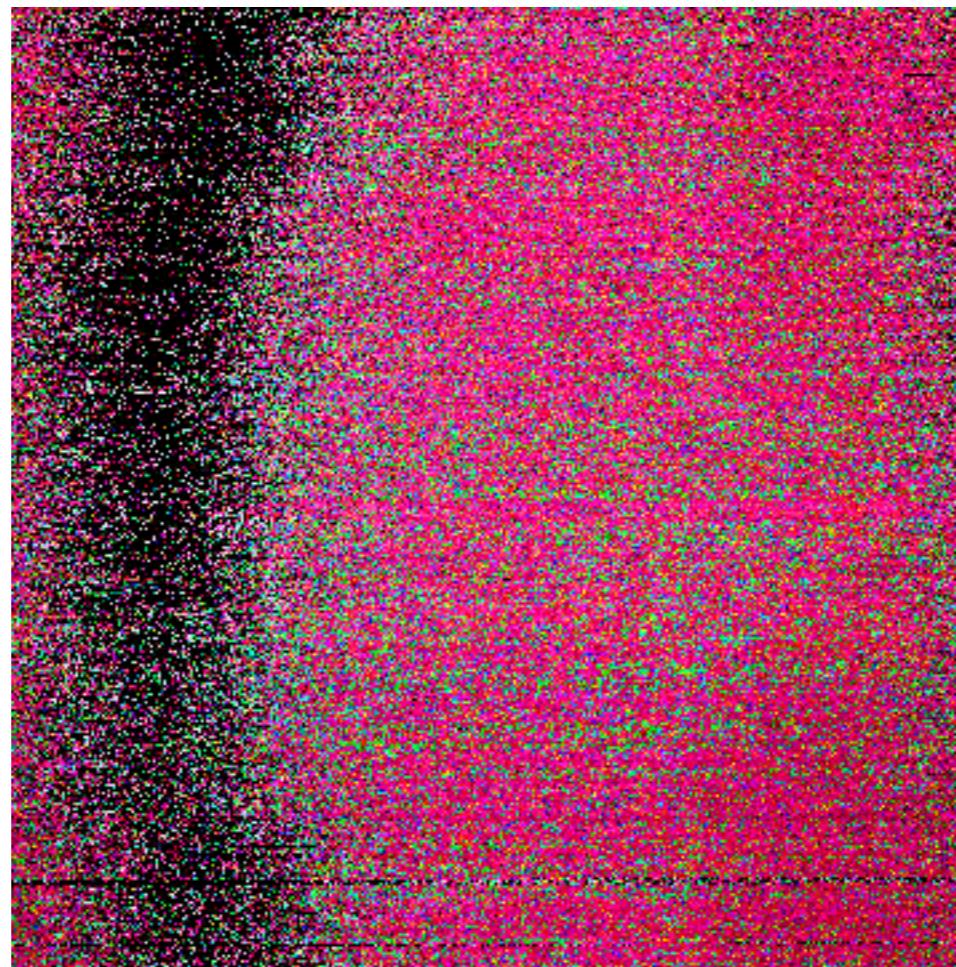
# #algoShowAndTell

- divide year into 4 minute “bins”
- for each bin average out top color
- result is a 360x360 raw file, convert to PNG using xxd or PS:



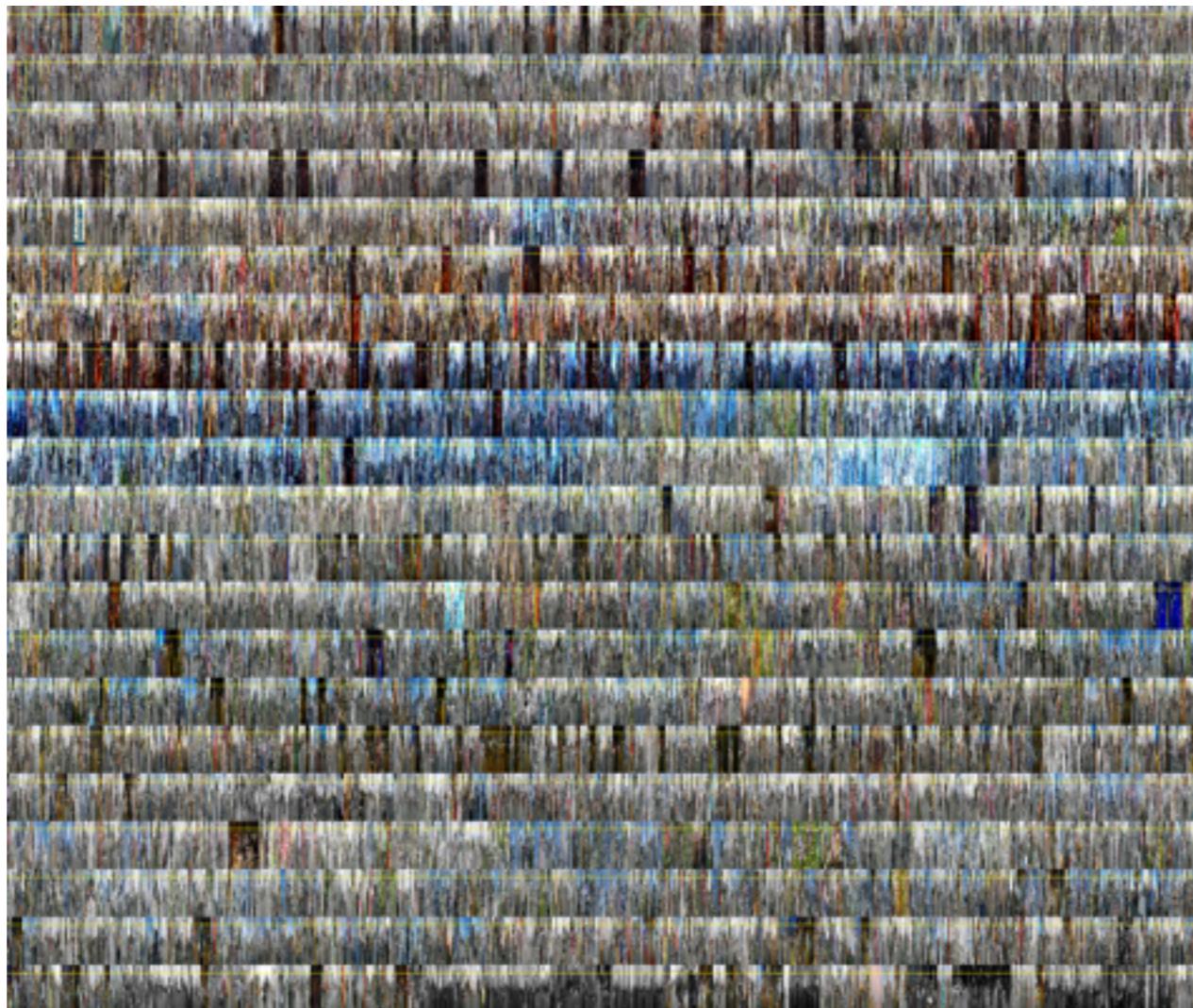
# #algoShowAndTell

- supersaturate in Photoshop
- Result is a graphic fit for shoes, tights and other clothing!



# #algoShowAndTell

- barcode:
  - slice thumbnails into 1 px slices w/“convert”
  - assemble slices into a collage w/“montage”
- result (makes a great shirt!):



# #algoShowAndTell

- make 365 top color lat/lon CSV files
- make 365 PNG maps with ggmap
- add labels with “convert -annotate”
- make video using: Time Lapse Assembler or IM



001\_ThuJan1

# #narrateYourWork

- 
- document what you tried TODAY
  - document what you'll do TOMORROW
  - because you will forget!
  - do it EVERY DAY!

# #getMentors

- Everybody needs help and inspiration
- Mine is @kearwoodgilbert
- Can I help you or can you help others?

# #stack

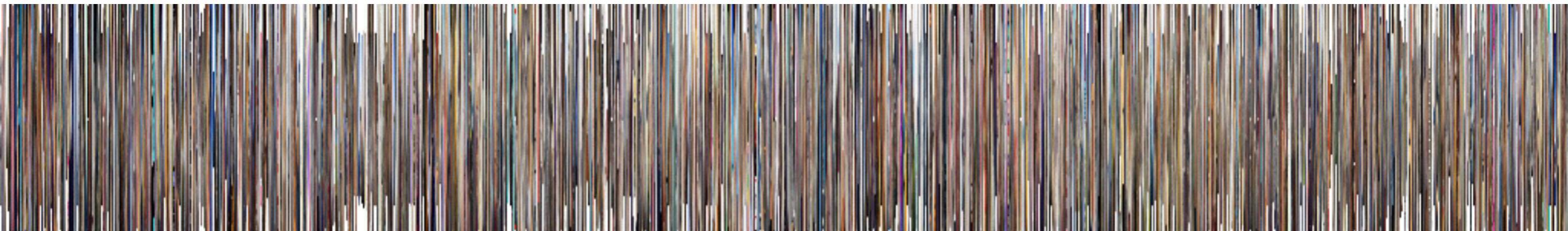
- 
- ruby: call the instagram API & write to MongoDB
  - ruby: read MongoDB & create JSON & CSV
  - R: read CSV and visualize w/ggmap & ggplot2
  - JS: read JSON and visualize w/leaflet
  - imagemagick & gm to make collages and convert to jpg & resize
  - visualizations: top colour maps, “barcodes”, 4 minute bins top colours

# #everythingBreaks



- ruby 1.x to 2.x breaks MongoDB driver
- OS X can't handle millions of files: find & args
- tools break: JPG breaks w>65535px
- APIs break: ig doesn't support 1 year;  
just 7 days & will break my code in June 2016

# #WhyMongoDB



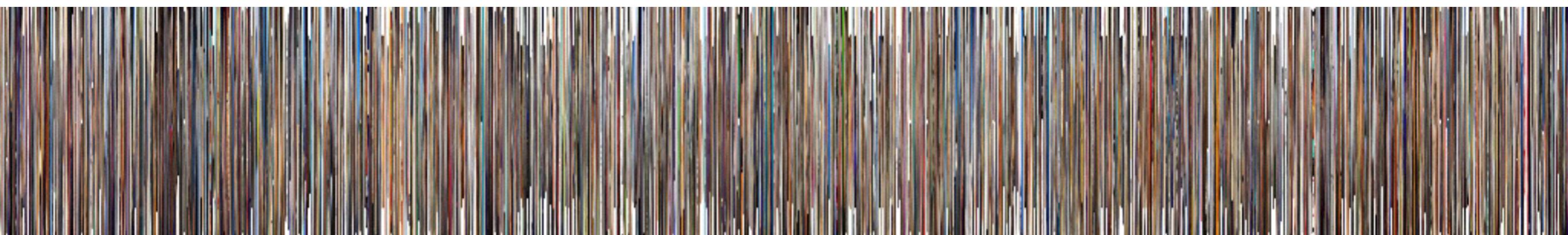
- I don't understand SQL :-)
- if API returns JSON, mongoDB is basically a glorified JSON store
- I've been using MongoDB since 2010 (used it with the Get Satisfaction API)

# #dataMustBeCleaned



- 100,000 photos' metadata missing lat & long
- 400,000 photos out of 1.4 million couldn't be downloaded! (deleted or made private?)

# #next



- ggvis? shiny? ganimate? VR?
- sound: Sonic Pi, tidal
- everything on the web!
- continuous visualization
- “real” wearables
- visualize Mozilla volunteer support data
- #AMA #fin