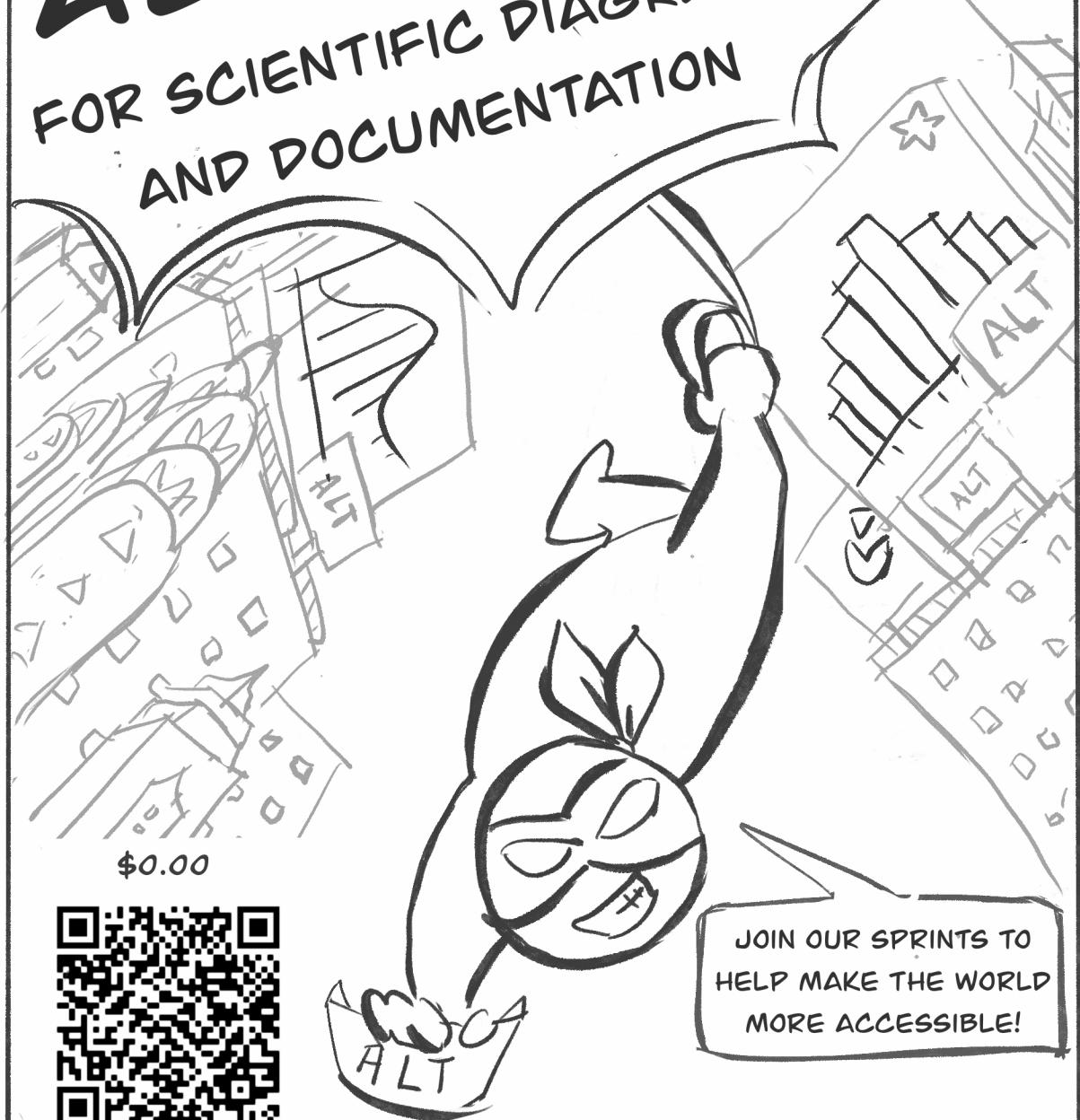


# HOW TO WRITE ALT TEXT

FOR SCIENTIFIC DIAGRAMS  
AND DOCUMENTATION

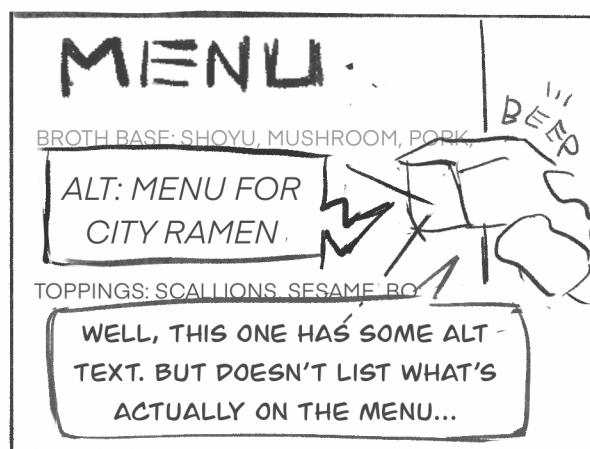
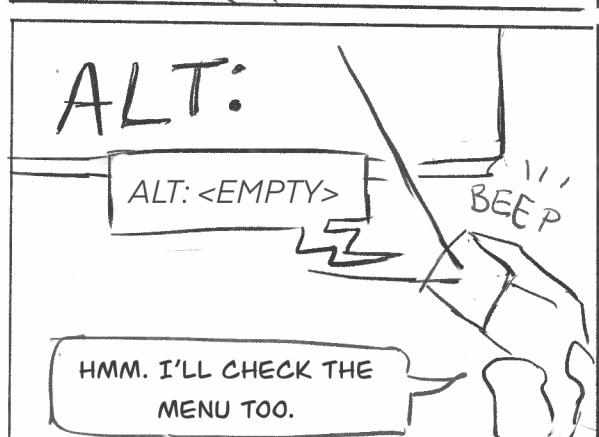
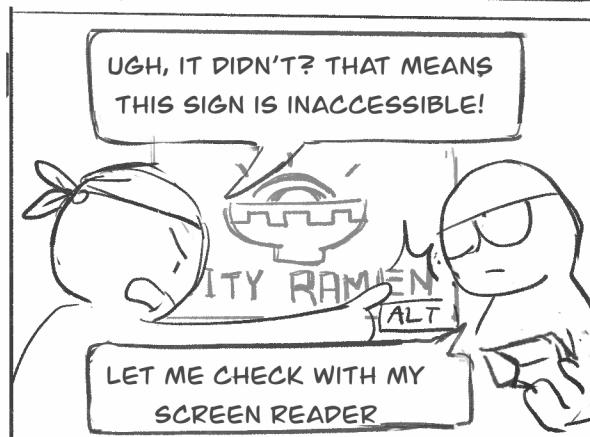
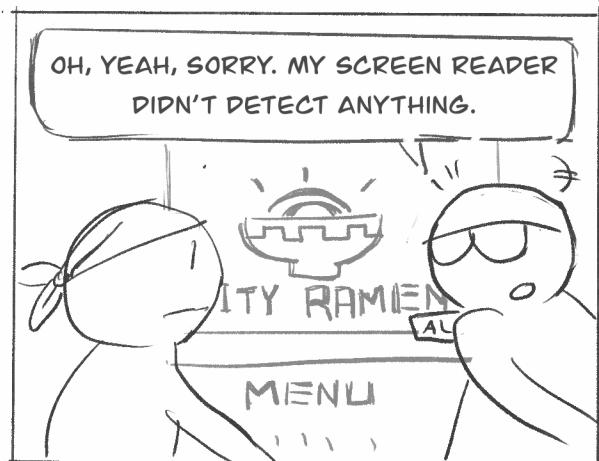
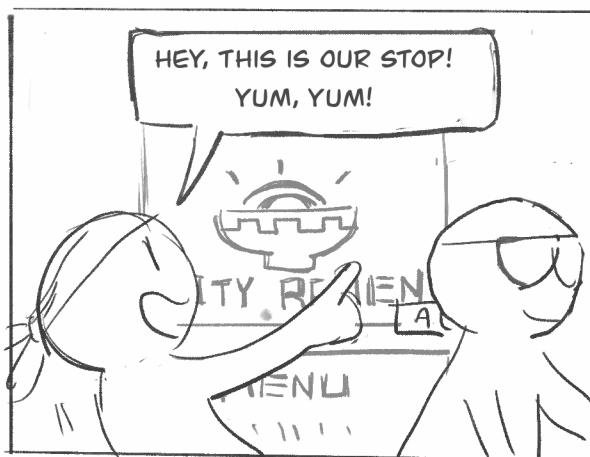
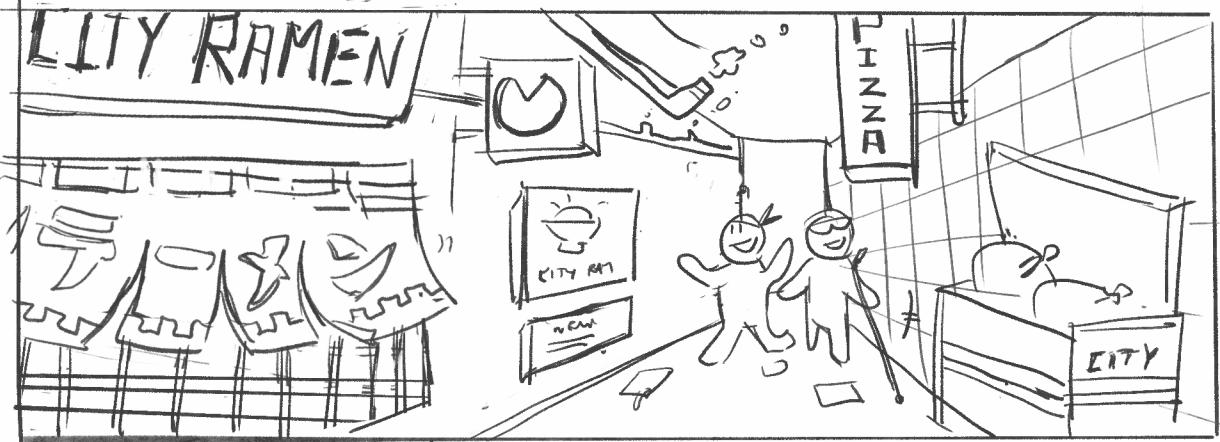
Quansight Labs

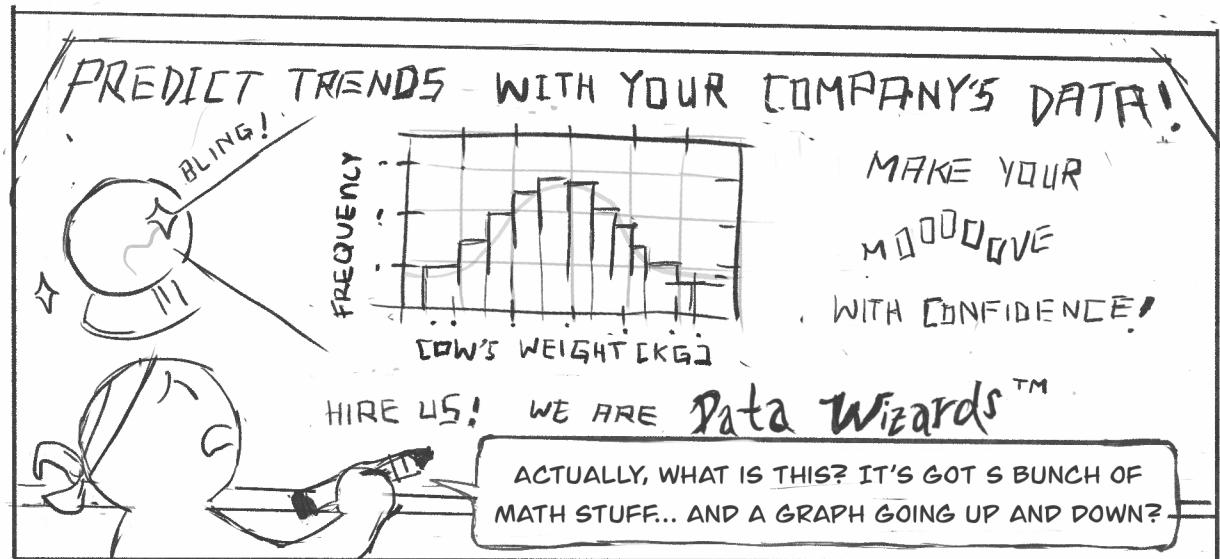


DIGITAL VERSION OF  
THIS COMIC  
WITH ALT TEXT!

AUTHOR + ARTIST: MARS LEE







WHAT DOES THE GRAPH LOOK LIKE?  
DOES IT HAVE AN X AND Y AXIS?

IT'S LIKE A BAR CHART BUT ALL  
SQUISHED TOGETHER? AND THE X  
AND Y AXIS IS ABOUT COWS...

OH, SOUNDS LIKE A HISTOGRAM! WHAT ARE  
THE UNITS ON THE X AND Y AXIS.?

IT'S... A COWS WEIGHT ON THE X AXIS...  
AND FREQUENCY ON THE Y AXIS....



BLAH BLAH BLAH  
ALT: A BILLBOARD ADVERTISING THE DATA ANALYTICS COMPANY, DATA WIZARDS.  
A CRYSTAL BALL PROJECTS A HISTOGRAM ABOUT COWS. THE COW'S WEIGHT IS IN  
KILOGRAMS ON THE X AXIS. THE FREQUENCY IS ON THE Y AXIS. THE DISTRIBUTION IS  
SYMMETRICAL. THE CAPTION READS "PREDICT TRENDS WITH YOUR COMPANY'S  
DATA! MAKE YOUR MOOOOOVE WITH CONFIDENCE!"



I'LL ADD ALT TEXT TO  
EVERYTHING IN THIS CITY!

BUT THIS WHOLE ALLEYWAY IS FILLED WITH  
SIGNS WITHOUT ALT TEXT. IT WOULD TAKE  
YOU A LONG TIME TO DO IT ALL BY MYSELF.

OF COURSE.

I DON'T HAVE TO DO  
EVERYTHING!

I'LL RECRUIT OTHERS,

ALT

I'LL TEACH  
PEOPLE HOW TO  
WRITE ALT TEXT.

THEN WE'LL ADD ALT TEXT, ALLEY BY  
ALLEY, FOR THE WHOLE CITY.

ALT

TOGETHER, WE  
ARE THE ALT  
TEXT TASK  
FORCE!

AND THE FIRST PERSON  
I'LL RECRUIT IS....

YOU!

JOIN US IN WRITING ALT TEXT!  
LET'S MAKE THIS CITY MORE  
ACCESSIBLE!

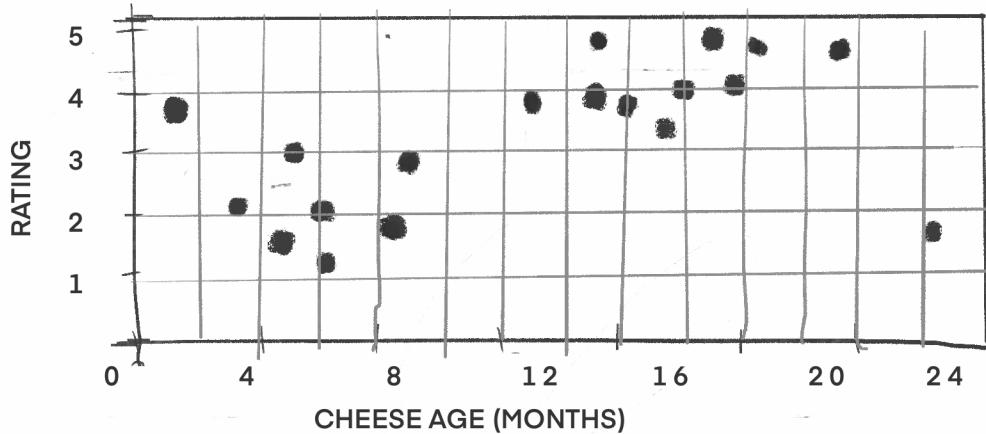


SINCE YOU SCIPY FOLKS ARE PRETTY SMART, COULD YOU WRITE ALT TEXT FOR THESE GRAPHS?



TO WRITE ALT TEXT FOR GRAPHS, HERE ARE SOME GENERAL PRINCIPLES:

- IDENTIFY THE GRAPH TYPE
- EXPLAIN THE DATA ON THE X-AXIS AND THE Y-AXIS
- SUMMARIZE THE OVERALL TREND
- KEEP IT SHORT. 3 SENTENCES IS GOOD.



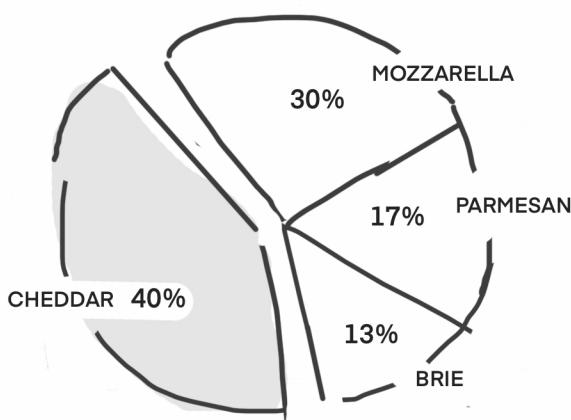
ALT:



### CONSUMER CHEESE PREFERENCES



THIS ONE DOESN'T HAVE A X OR Y AXIS! TRY IT OUT!

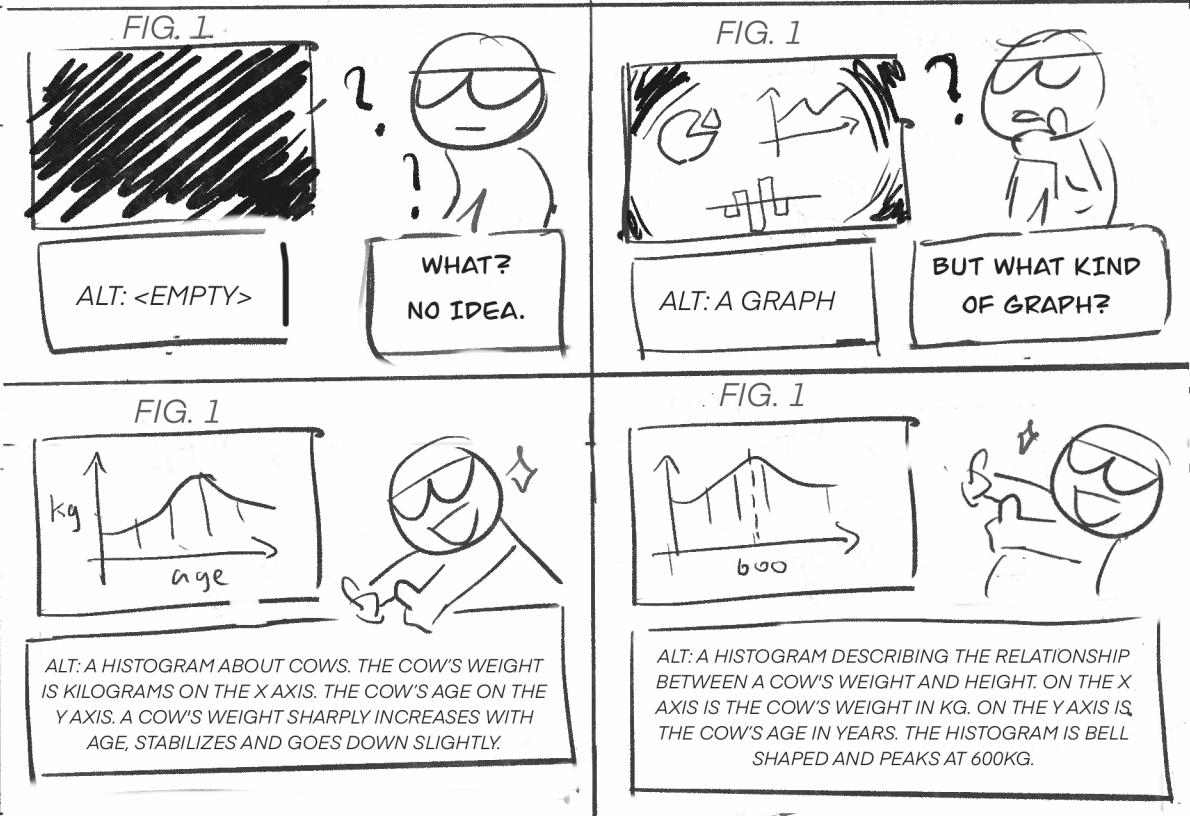


ALT:

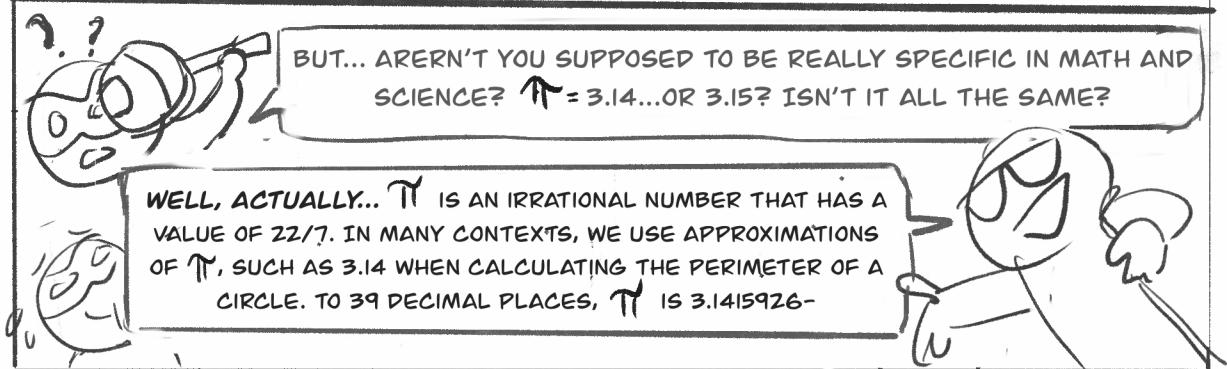
COMPARE THE ALT TEXT YOU WROTE ON THE PREVIOUS PAGE WITH A FRIEND'S COMIC BOOK.. HOW ARE YOUR ANSWERS SIMILAR OR DIFFERENT?



"FOR MORE INFORMATION, REFER TO FIG. 1"



SOME ALT TEXT IS BETTER THAN NO ALT TEXT!



CONTEXT! HOW MUCH ALT TEXT SHOULD WE WRITE?

DEPENDS ON THE CONTEXT.

SOMETIMES WE ONLY WANT A SHORT SUMMARY OF AN IMAGE...

ALT: COWABUNGA PIZZA  
MENU. OPTIONS INCLUDE  
PEPPERONI, ANCHOVIES-

ALT: SHREDDER'S CHEESE.  
ARTISANAL CHEESE  
STARTING FROM \$6-

ALT: CITY RAMEN MENU.  
CUSTOMIZATION OF  
BROTH, TOPPINGS-



IN OTHER TIMES, WE WANT ALL THE DETAILS!



ALT: MENU FOR CITY RAMEN  
BROTH BASE: SHOYU: \$11, MUSHROOM: \$12, PORK: \$15.  
TOPPINGS: BOILED EGG: \$2, EXTRA SCALLIONS: \$1, CHILI OIL: \$1

AM IN THE MOOD FOR SHOYU OR  
MUSHROOM? AND WHY DO I NEED  
TO PAY EXTRA FOR THE EGG?

IF I NEED A VERY SPECIFIC ANSWER FROM A GRAPH THAT SHORT  
ALT TEXT WOULDN'T GIVE ME, THEN WE HAVE THE OPTION OF

- PROVIDING LONG ALT TEXT (LONGER THAN 3 SENTENCES)
- PROVIDING THE INFORMATION AS A TABLE



I NEED A VERY SPECIFIC ANSWER FOR THIS:  
WHEN'S THE BEST AGE FOR MY COW TO  
ENTER THE "BIGGEST COW  
COMPETITION" AT THE COUNTRY FAIR?



I CAN USE MY SCREENREADER TO  
JUMP BETWEEN COLUMNS AND ROWS,  
EXPLORING AND FINDING WHAT I NEED

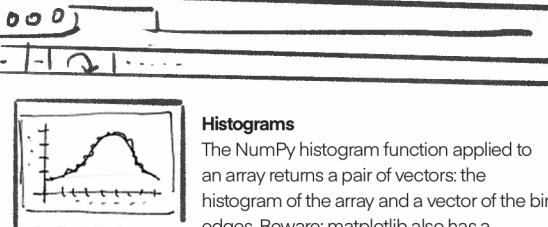
AGE (YEARS)	WEIGHT (KG)
1	100
2	150
3	300
4	600
5	500

AH, THE BEST AGE IS 4 YEARS, AT 600KG!





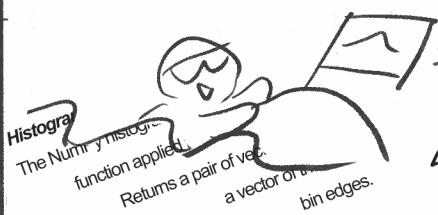
IN THE CONTEXT OF DOCUMENTATION FOR SCIENTIFIC PYTHON PROJECTS, THERE'S USUALLY ENOUGH DETAILS SURROUNDING THE GRAPH



```
>>> import numpy as np
>>> rg = np.random.default_rng(1)
>>> import matplotlib.pyplot as plt
>>> # Build a vector of 10000
normal deviates with variance
0.5*2 and mean 2
```

### Histograms

The NumPy histogram function applied to an array returns a pair of vectors: the histogram of the array and a vector of the bin edges. Beware: matplotlib also has a function to build histograms (called hist, as in Matlab) that differs from the one in NumPy. The main difference is that pylab.hist plots the histogram automatically, while numpy.histogram only generates the data.



A NORMALIZED HISTOGRAM...

ALT TEXT SUMMARIZES THE MOST IMPORTANT PARTS.  
AN ISLAND AFTER THE SEA OF TEXT.

THIS IS JUST THE TIP OF THE ICEBERG. IN BLOG POSTS, RELEASE NOTES, CONTRIBUTOR GUIDELINES, THERE'S ALL SORTS OF CURVEBALLS WE'RE STILL FIGURING OUT

### SCREENSHOTS

ADDED THE FEATURE HERE

A	B	C	D
1			
2			
3			
	4)	5)	6)

### MEMES

AND IF THAT DOESN'T WORK...

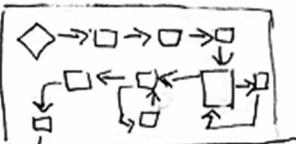


IT WILL TAKE TIME FOR THESE TO BECOME ACCESSIBLE.

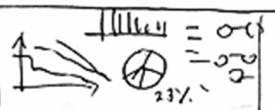
BUT ONCE IT IS, I'LL WANT TO LEARN EVERYTHING!

### FLOWCHARTS

IF YOU'RE STUCK, FOLLOW THE CONTRIBUTOR CHART!



### HEADER IMAGES



AS YOU CAN SEE, THERE'S AN IMMENSE VALUE IN LITTLE MAZILLA FOR COW.

I HAVE SO MUCH DATA ABOUT COWS...

COWABUNGA!



# FIND OUT MORE IN OUR NEXT ISSUE AT EUROSICPY 2022!



IN OUR NEXT ISSUE, WATCH OUR HEROES FACE EVEN BIGGER CHALLENGES, SUCH AS....

- COMMUNITY INVOLVEMENT
- SUSTAINABILITY
- OTHER TYPES OF ACCESSIBILITY

IF YOU WANT TO START APPLYING WHAT YOU LEARNT, JOIN US IN OUR **ACCESSIBILITY SPRINTS** DURING SCIPY 2022! \*

SPRINT ATTENDEES CAN MAKE CONTRIBUTIONS VIA THE GITHUB SUGGESTION FEATURE, WHICH CAN BE SUBMITTED VIA WEB BROWSER.

SO YOU COULD SUBMIT YOUR CONTRIBUTION FROM YOUR PHONE WHILE IN LINE FOR LUNCH!

BY USING GITHUB SUGGESTIONS, WE

- LOWER BARRIERS
- GET MORE FIRST TIME CONTRIBUTORS
- MAINTAIN INDIVIDUAL CREDIT
- HIGHLIGHT NON-CODE CONTRIBUTIONS



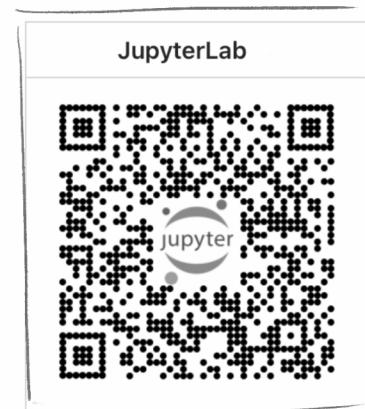
WAIT, HOW DO YOU DO THAT?

BY SCANNING THE QR CODES ON THE NEXT PAGE!

JUST LIKE IN THE STORY, YOU CAN SCAN THE WORLD AROUND YOU!



# ACCESSIBILITY SPRINT: SCIPY 2022 EDITION



DATES: JULY 11 - JULY 17 2022

FORMAT: IN-PERSON (AT SCIPY) AND REMOTE

TARGET AUDIENCE: EVERYONE! ESPECIALLY IF YOU READ THIS COMIC

IF YOU NEED ANY HELP, LOOK FOR THE QUANTSIGHT TABLE AT SCIPY!  
OUR GUIDES, SUCH AS THE COMIC AUTHOR, MARS LEE, WILL BE THERE

REFER TO THIS CHEATSHEET DURING THE SPRINT!

## GENERAL PRINCIPLES

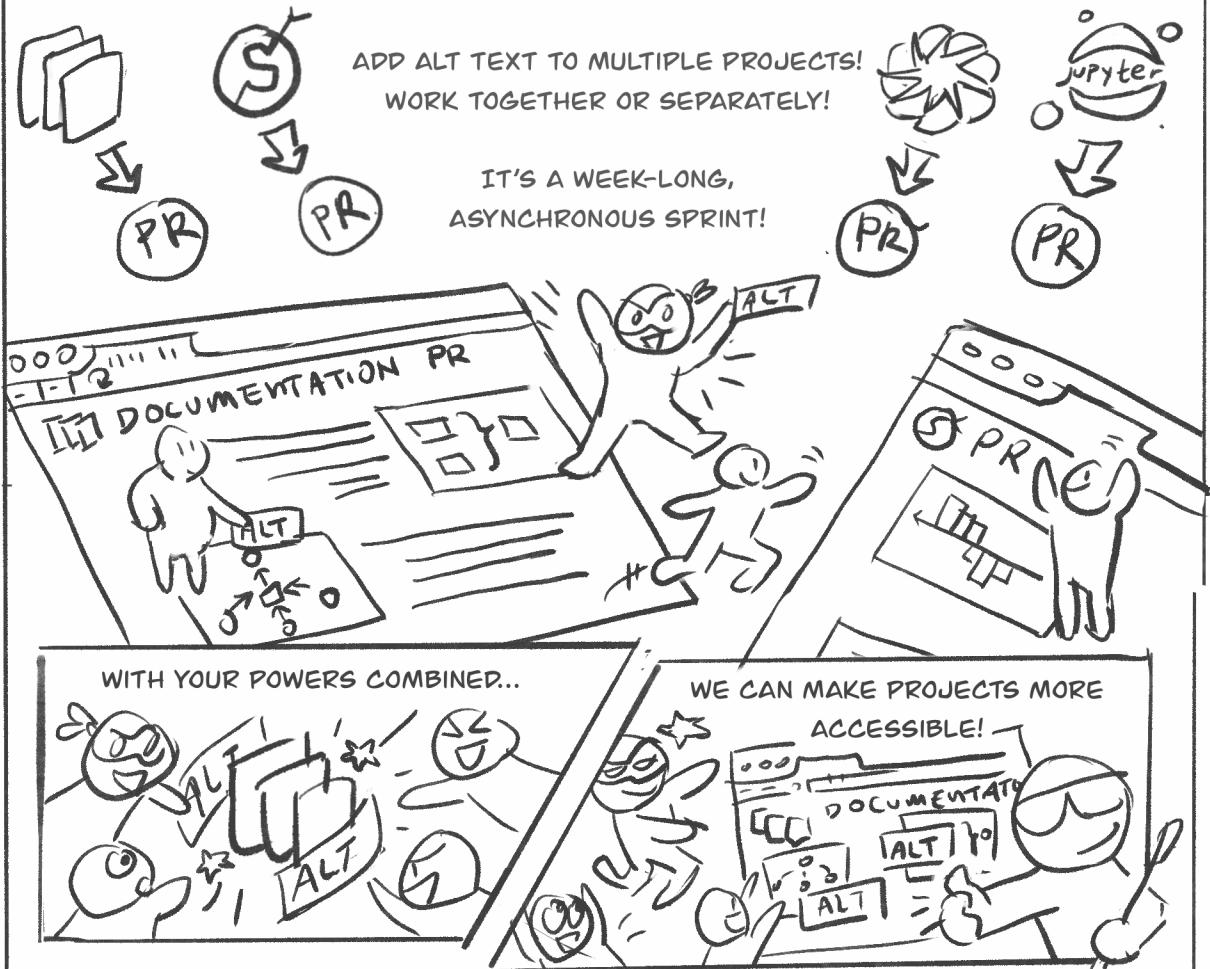
- IDENTIFY THE GRAPH TYPE
- EXPLAIN THE DATA ON THE X-AXIS AND THE Y-AXIS
- SUMMARIZE THE OVERALL TREND
- KEEP IT SHORT. 3 SENTENCES IS GOOD.

## CHECKLIST

- CORRECT SPELLING AND NO TYPO'S
- PERIODS AND COMMAS WHERE RELEVANT
- A LOGICAL WAY OF FITTING IN THE REST OF THE DOCUMENTATION
- CONSISTENT TEXT AND/OR DESCRIPTIONS FOR THE SAME ELEMENTS IN DIFFERENT IMAGES
- A DESCRIPTION OF ANY TEXT IN THE IMAGE



# THESE PROJECTS NEED ALT TEXT! HELP THEM NOW AT SCIPY 2022!



PEOPLE WITH DISABILITIES LEARN AND CONTRIBUTE TO SCIENCE AND MATH EVERYDAY.

LET'S MAKE IT EASIER FOR EVERYONE TO ACCESS THESE VERY POWERFUL  
TOOLS OF SCIENTIFIC PYTHON!

ONE LAST THING....  
IF YOU ADD ALT TEXT TO ALL 4  
PROJECTS, COME BACK TO THE  
QUANSIGHT TABLE FOR A SPECIAL GIFT!

