



pikmin

a comprehensive overview

by nicole shum

art by **nintendo**

what are **pikmin** ?



red pikmin

the **red** pikmin can
withstand fire



yellow pikmin

the **yellow** pikmin can
withstand electricity



blue pikmin

the **blue** pikmin can
breathe underwater

art by @paracosmparty

what are **pikmin** ?



purple pikmin

the **purple** pikmin is
very strong



rock pikmin

the **rock** pikmin is
very resilient



ice pikmin

the **ice** pikmin can
freeze water

what are **pikmin** ?



white pikmin

the **white** pikmin can
withstand poison

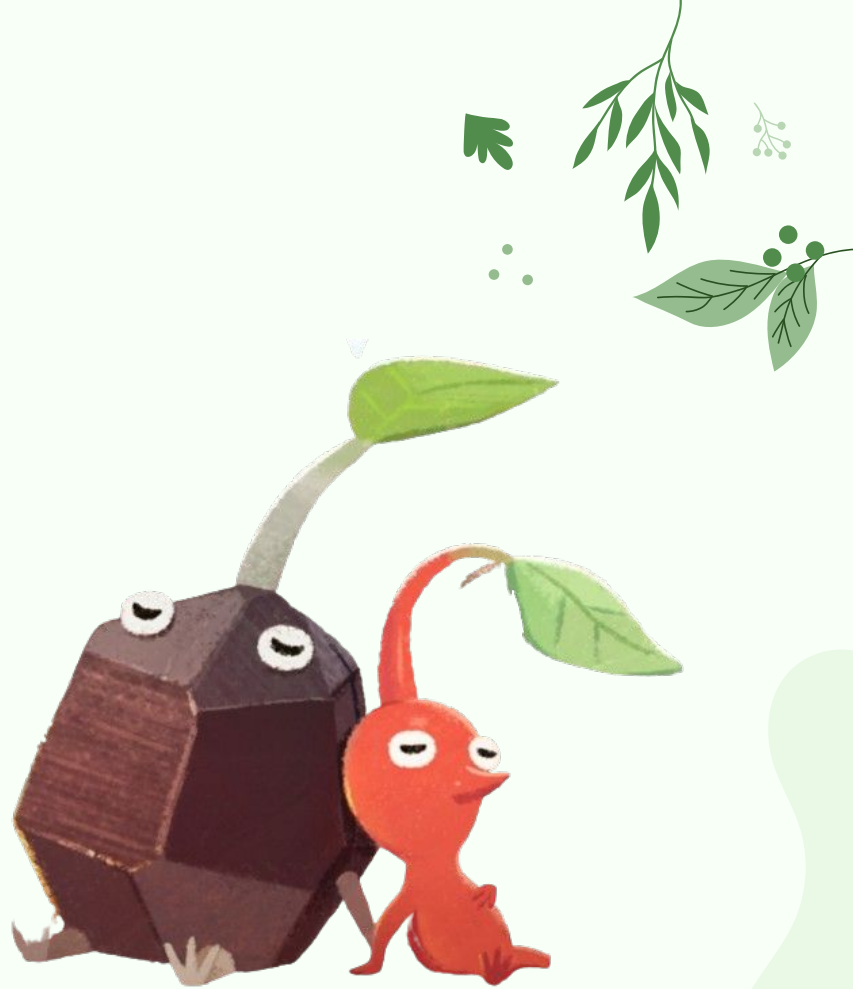


pink pikmin

the **pink** pikmin
can fly

art by @paracosmparty

but
which is
the best
pikmin?






goal: determine the best pikmin based on three metrics

01

cultural impact

how much the pikmin has
contributed to society,
good or bad



via: use of reddit api to
determine **number of
posts** per pikmin on
r/pikmin and
r/pikminbloomapp

02

public outlook

the overall public opinion
on this pikmin

via: use of reddit api to
determine **average
number of upvotes** per
pikmin and **nlp sentiment
analysis of comments**
relating to this pikmin

03

viability in meta

how “good” or “useful” this
pikmin is in the current
meta (pikmin 4)



via: web scraping
techniques on pikipedia's
technical stats for each
pikmin on pikmin 4



01



cultural impact

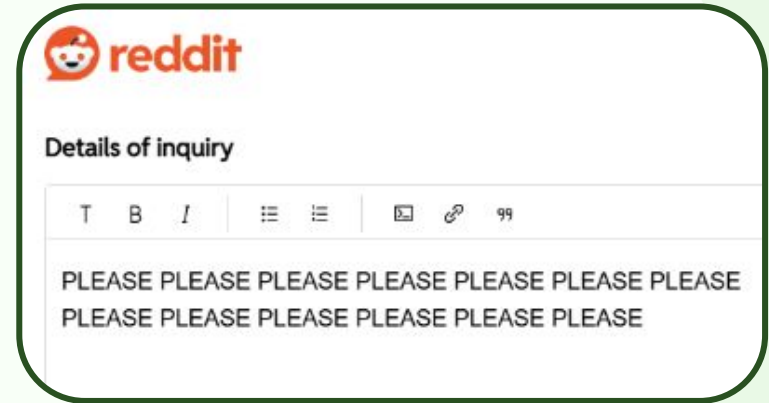
art by nintendo

using the reddit api

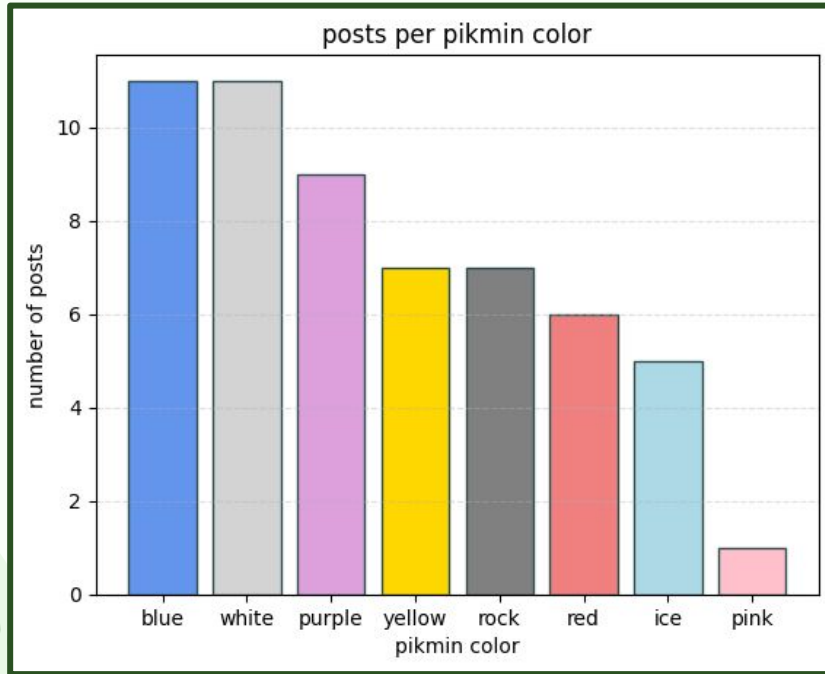
goal: get all **posts** in **r/pikmin** and **r/pikminbloomapp** that mention each of the pikmin colors in the title

steps:

1. acquire **api access** (*image related*)
2. use **python** library **praw**
3. use **get requests** to search for anything with "red", "yellow", "blue", "pink", "rock", "white", "ice", or "purple" in the title
4. count **number of posts** per color



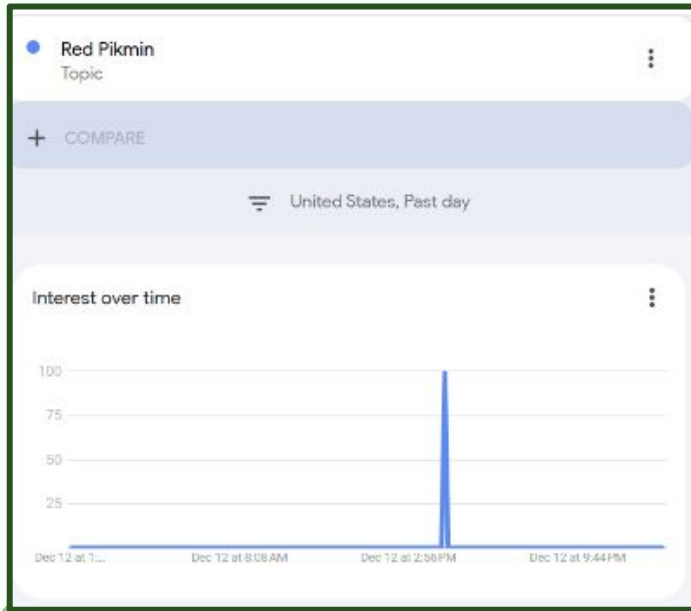
results



most posts:
white and **blue**
pikmin!



note



(these searches are probably all me...)

i wanted to include google trends data in this section as well, but as you can see pikmin is not popular enough to yield significant results...



02



public outlook

art by nintendo

using the **reddit api** (again)

goal: use post data acquired for number of posts
dataframe to get **number of upvotes** and analyze all
top-level comments using **nlp sentiment analysis**

steps:

1. get **number of upvotes** from each post
2. use **get requests** to get the body of text of each top level comment
3. use **python** library **nlk**
4. run each comment through **nlk's sentiment analyzer**
5. calculate **percentage of positive comments** for each color
6. **standardize scores** in these two metrics relative to the highest score to get an aggregate overall score



nlTK's sentiment analyzer

“jake is a really cool person!”

pn	v	art	adv	adj	n
(o)	(o)	(o)	(o)	(+)	(o)

overall: (+)

“jake is blond.”

pn	v	adj
(o)	(o)	(o)

overall: (o)

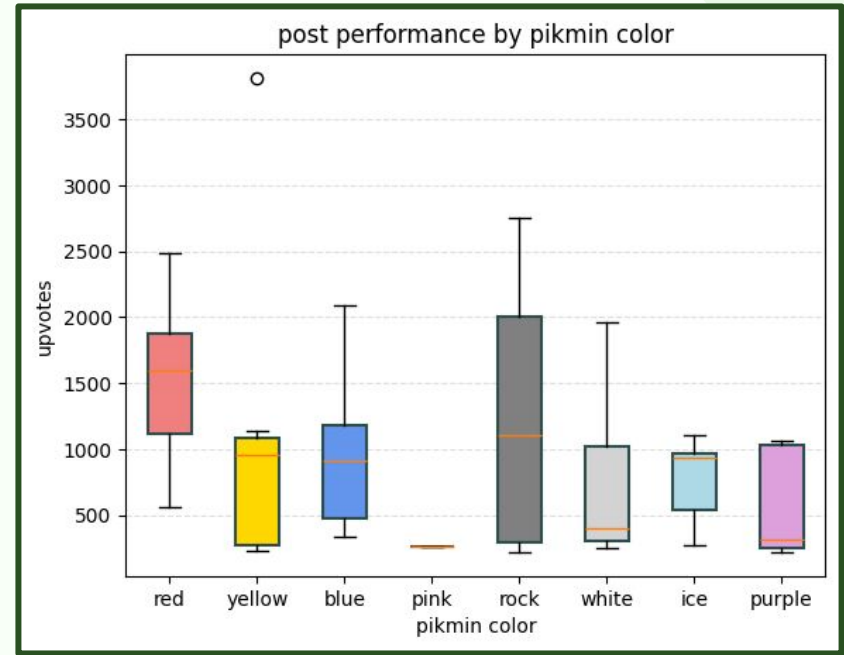
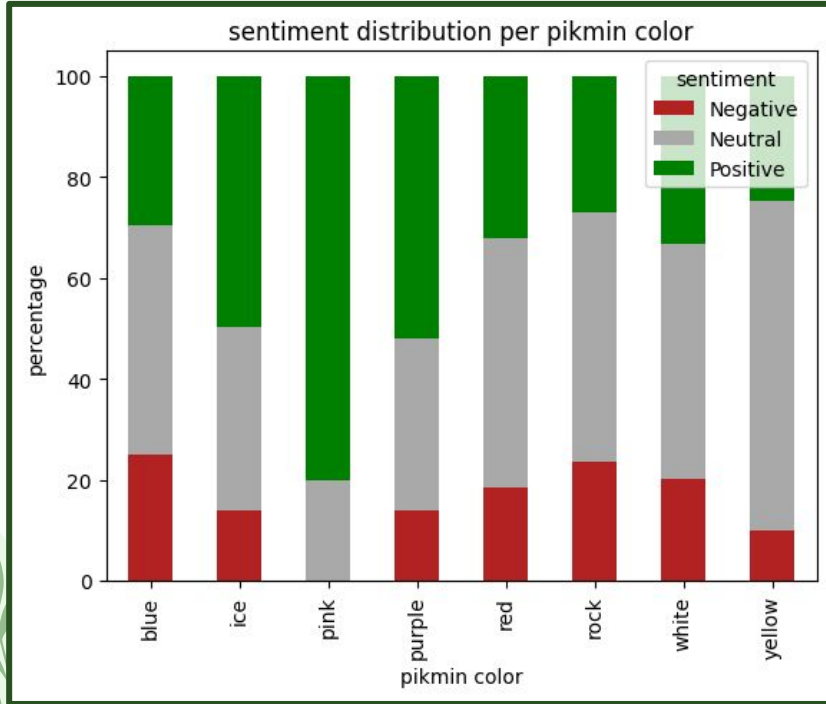
“i hate jake because he is mean.”

pro	v	pn	cj	pro	v	adj
(o)	(-)	(o)	(o)	(o)	(o)	(-)

overall: (-)



results



results

highest average
upvotes:
red pikmin!

highest
percentage of
positive
sentiment:
pink pikmin!

best overall
public outlook:
red pikmin!





03



viability in meta




art by nintendo



using pikipedia

goal: get **technical statistics** for each pikmin from the most recent game (pikmin 4), covering attack strength, carrying strength, running speed (average), and digging speed

steps:

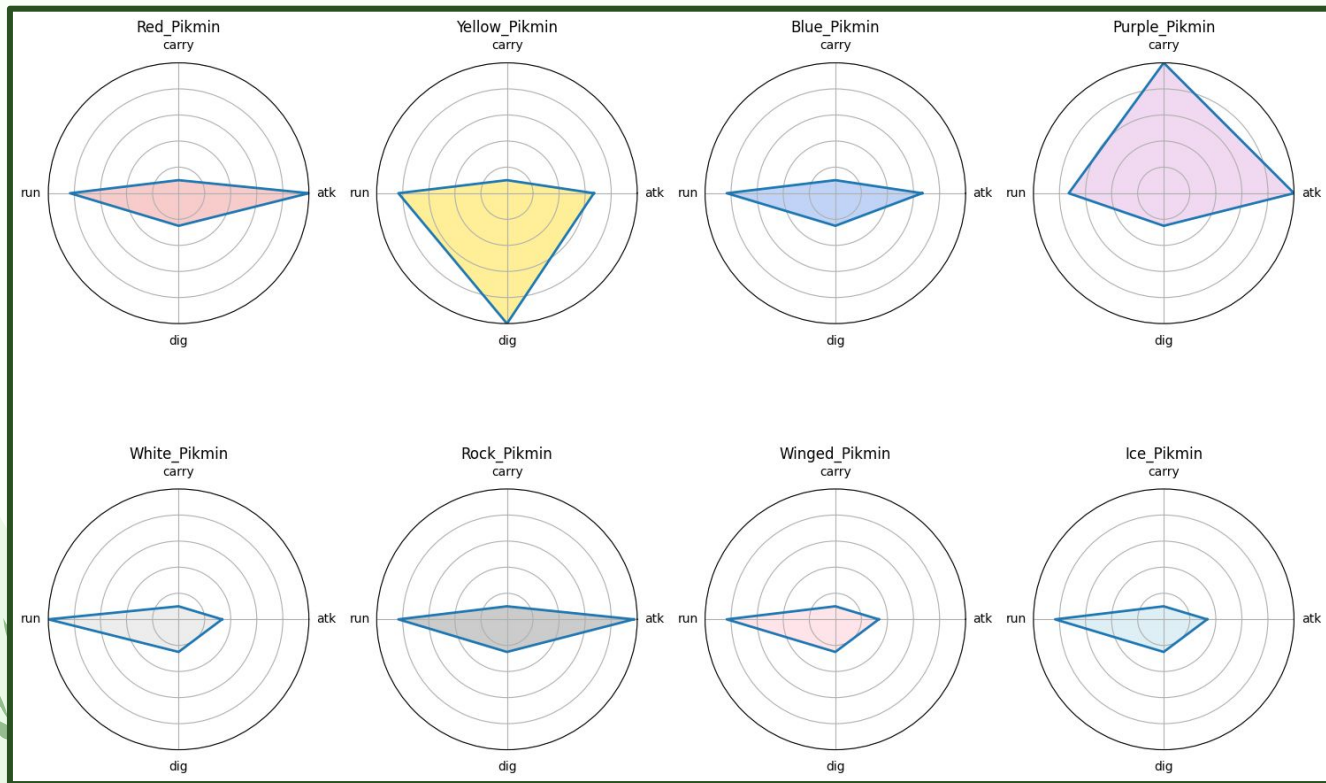
1. via **get requests**, get **html source code** for each color pikmin's page on pikipedia (pikmin fan wiki)
 2. use **python** library **bs4** for web scraping
 3. **parse html** with beautifulsoup
 4. **extract data** from "pikmin 4 technical information" table
 5. **aggregate statistics** relative to highest score in each category for an overall score
- 

yellow pikmin technical stats

<i>Pikmin 4</i> technical information (?)		[hide]
Attack strength	10	
Carrying strength	1	
Running speed	140 leaf, 170 bud, 200 flower, 220 spicy	
Digging speed	≈4× the norm	



results



best overall:
purple pikmin!





final results!

which pikmin do you think it will be?



art by @midori_chann

the bottom five

08

pink pikmin



07

ice pikmin



06

rock pikmin



04

yellow pikmin



05

red pikmin



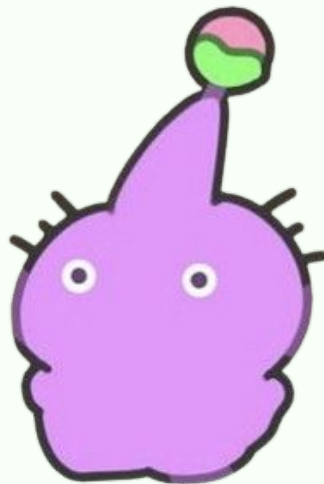
art by @midori_chann

the podium

art by @midori_chann



02
blue pikmin



01
purple pikmin



03
white pikmin

art by nintendo



**congrats
purple
pikmin!**

“meep meep meep meep
meep” - *purple pikmin*



bonus round!

which pikmin are you?



art by **unknown**

16personalities & yayomg.com

goal: **compare similarity scores** (nltk) in descriptions of mbti personality types (16personalities) and descriptions of pikmin personalities (yayomg.com)

steps:

1. use **get requests** to get a one paragraph blurb about each personality from 16personalities
2. **load descriptions** of each pikmin from yayomg.com
3. compare **cosine similarity** using **nltk's vectorizer** of each description
4. **assign two personalities** to each pikmin based on their top two personality scores

art by **nintendo**



mbti results

mbti	pikmin
intj	white
intp	purple
entj	white
entp	ice
infp	pink
infj	yellow
enfj	blue
enfp	rock

mbti	pikmin
istj	ice
isfj	pink
estj	red
esfj	purple
istp	red
isfp	rock
estp	yellow
esfp	blue



thank you!

this project is also on [github](#)