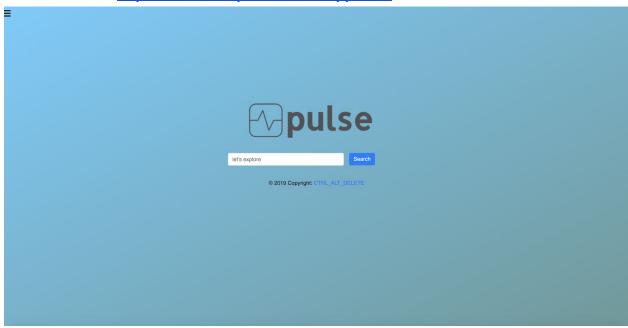
Project Milestone 6

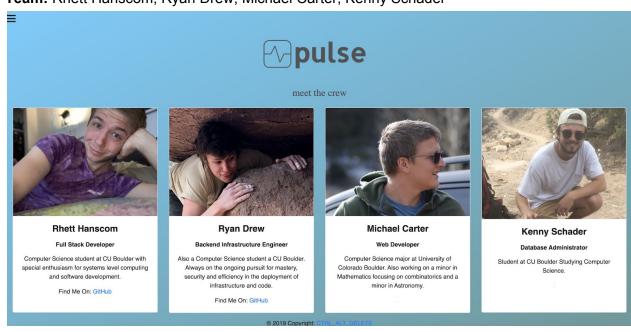
Group 112-5 Rhett Hanscom Ryan Drew Michael Carter Kenny Schader

Title: Pulse

Link to live site: https://csci-3308-pulse.herokuapp.com/



Team: Rhett Hanscom, Ryan Drew, Michael Carter, Kenny Schader



Tools:

Youtube/Google API - 5 - very easy to use

Reddit API - 4 - not as easy to use as google's youtube api

Twitter API - 4 - Would be 5 if not for the cap on the number of tweets able to be pulled per day.

Chart JS - 5 - JavaScript Library - makes beautiful graphs!

Django - 5 - Great python framework for building websites. The admin and database features were incredibly easy to use and I truly enjoyed working with this service tremendously.

TextBlob - 4 - Text analysis python library. Very easy to use, though can be confused by the nuances of social media.

Tweepy - 5 - Twitter python client - Super easy to use, I loved it.

Bootstrap - 5 - HTML framework. How could anyone build a website without this?

Apple - 5 - Computer hardware. We all used them to create this project, they are great computers.

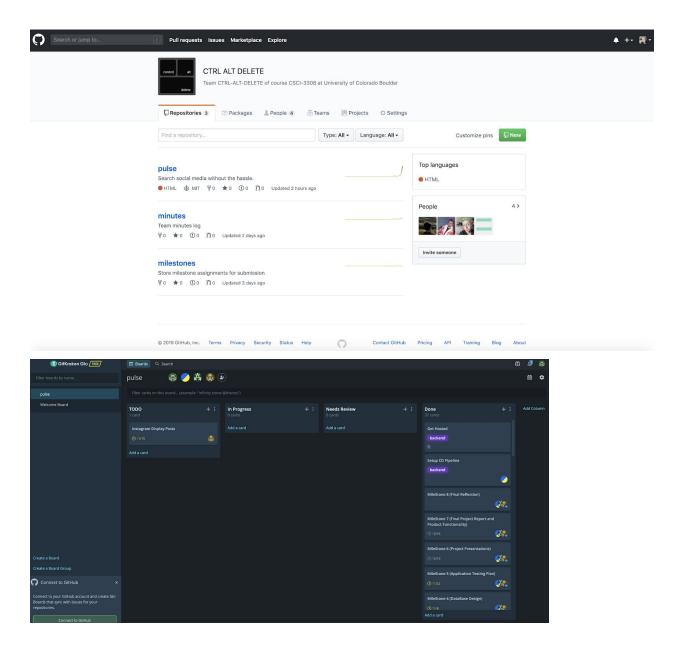
Travis CI - 5 - Amazing free solution for CI/CD pipeline implementation. Integrates beautifully with GitHub and Heroku

GitKraken - 5 - Provides everything we need for a Kanban board, wish we had more opportunity to use this to its full extent.

Heroku - 3 - Pretty darn awesome cloud hosting provider, extremely easy to use and setup. Only two complaints are: (1) Our postgresql app is hosted and exposed *publicly* on AWS which means anyone on the internet can touch it if they get a hold on its external IP, (2) lots of really useful features cost money. We weren't able to use a custom domain with HTTPS support and running unit tests in our CD pipeline isn't free.

GitHub - 5 - I mean, how can you complain about GitHub?





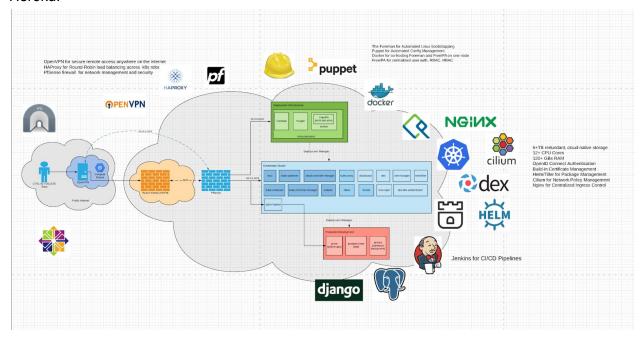
Methodologies -

Kanban Boards - We used a Kanban board to track our TODO lists and progress over time. We were all able to see what we were each working on and use it to store/communicate our next steps on the project.

Agile/Waterfall - We started out using a very Agile style, i.e. we compiled a list of features and started knocking them out one by one over time, checking in each week. As the semester went on however we transformed more into a Waterfall style, as we each knew what we needed to do it and it was just a matter of getting the work done on time.

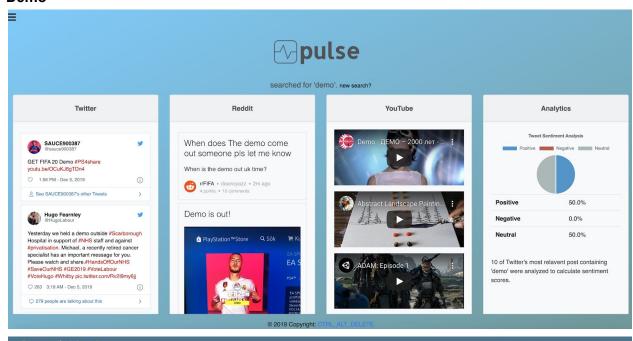
Challenges -

Rhett - we had previously been interacting with Twitter data through a python client called Twint and machine learning through PySpark, but the combination was too slow and ultimately we Ryan - I had to learn and implement 13 open source projects to setup our internal Kubernetes cluster: OpenVPN, PfSense, HAProxy, The Foreman, Puppet, Docker, FreeIPA, Kubernetes, Rook, Cilium, dex, dex-k8s-authenticator, Helm/Tiller, Nginx Ingress Controller. I eventually got the cluster setup and working, however in all its awesome glory, I had no idea if it was secure or stable. I didn't feel comfortable hosting our site on the cluster unless the cluster was setup the right way- secure, efficient, stable- but I'll need months more research to go from It's working! to It's working and it will continue to work. This is why I eventually just popped our project up on Heroku.



https://www.lucidchart.com/invitations/accept/deeb19f2-d1d7-4807-8f95-bff9899e9b6f

Demo -



Site administration

AUTHENTICATION AND AUTHORIZATION

Groups + Add / Change
Users + Add / Change

PULSE_SEARCH

Searchs + Add / Change

Django administration	WELCOME, RHETTHANSCOM. VIEW SITE / CHANGE PASSWORD / LOG OUT
Select search to change	ADD SEARCH +
Action: • • • • • • • • • • • • • • • • • • •	
SEARCH	
demo	
never gonna give you up	
□ yaks	
veganism	
veganism	
□ coffee	
these are	
□ my	
searches	
my search	
□ misterbubz	
misterbubz	
□ kanye west	
misterbubz	
□ misterbubz	
warren2020	