

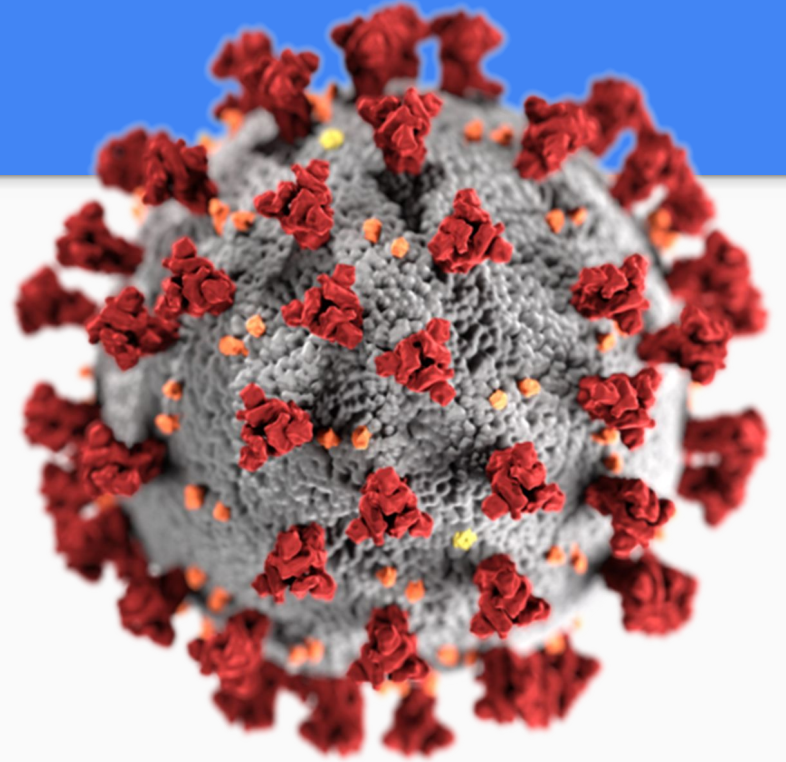
Lifestyle Impacts of COVID-19: Project Presentation

Team Members:

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Background

- COVID-19 has changed lives
- In which ways? How much?
- Output: CSV + choice of visualization



Data Sources

COVID-19 data

- [Bing.com](https://www.bing.com)
- Confirmed cases, deaths, recoveries
- Daily counts and deltas for each of the above
- Detailed location info

Google Trends

- [Pytrends package](#)
- Keyword search
- Time series
- Scaled relative search interest (0-100)

Sample Use Case 1: Dog Ownership



- Interested in getting a dog
- How much more popular are they now as compared to before COVID-19 hit?

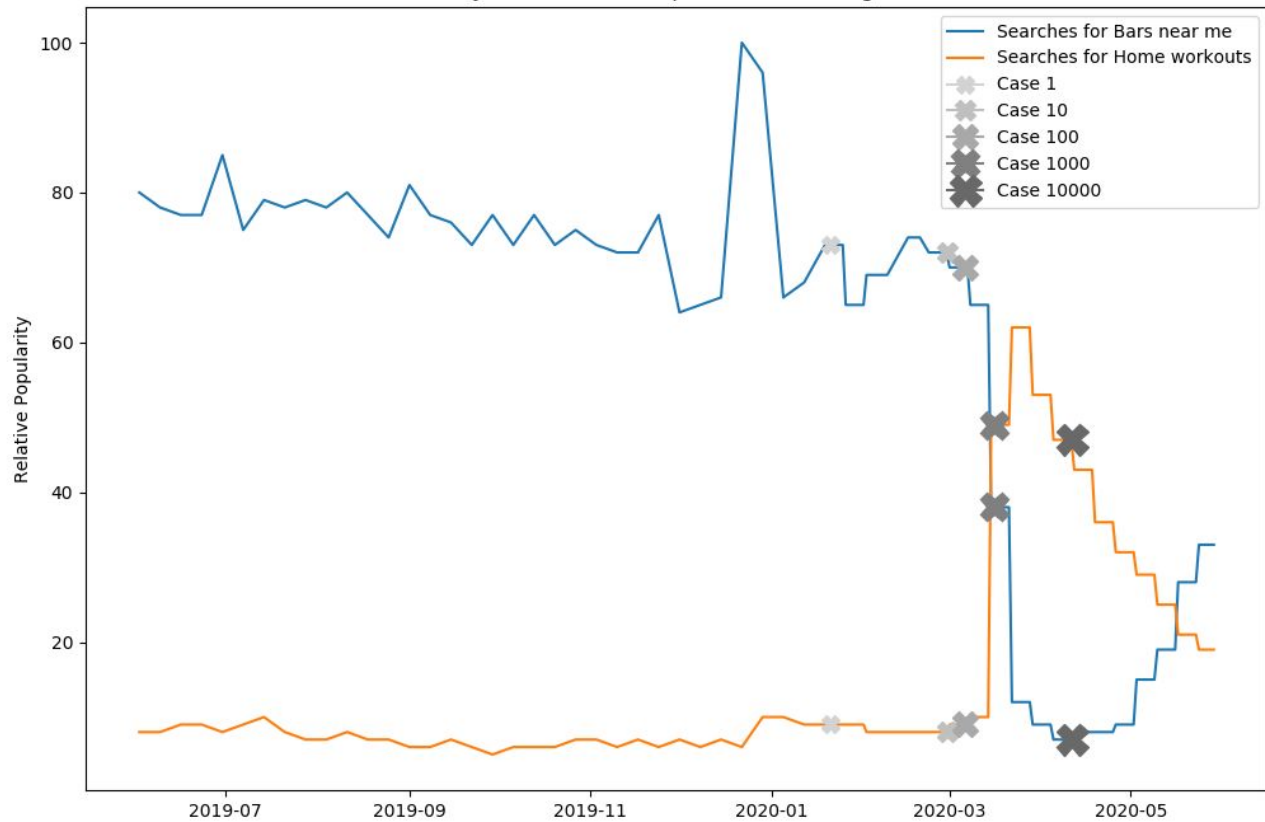
Sample Use Case 2: Dreams



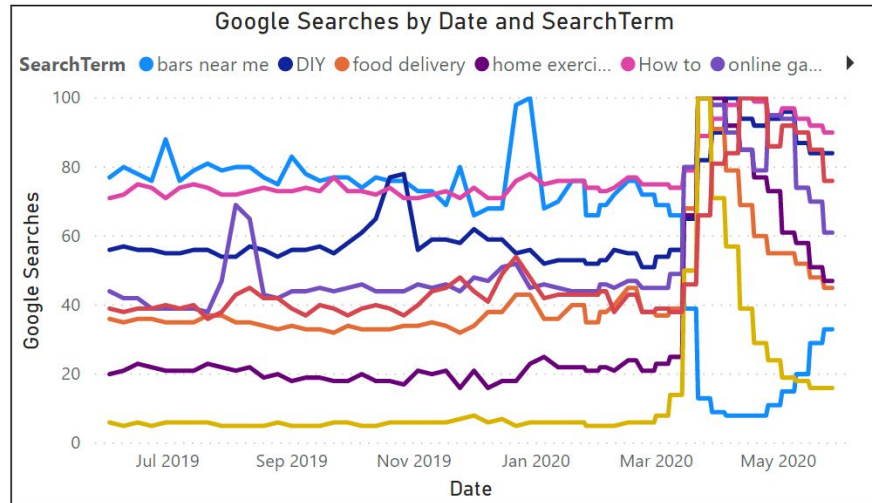
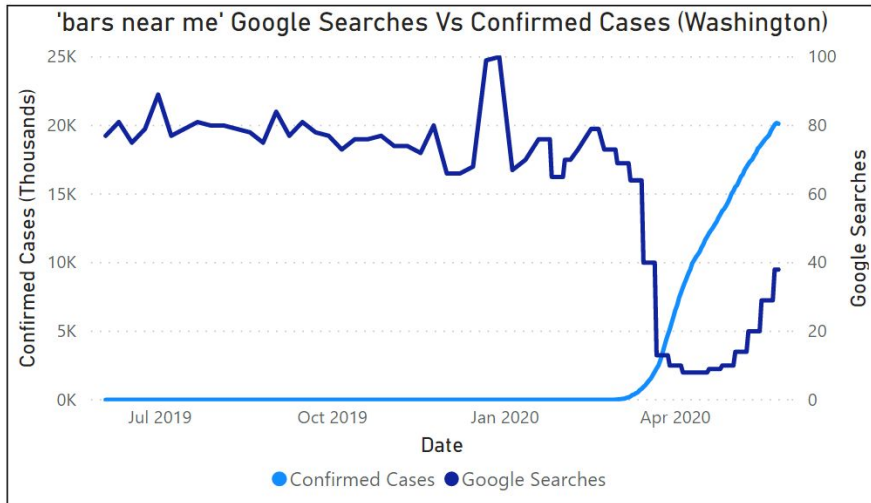
- I read this article and want to see if my strange dreams are actually common:

<https://www.nationalgeographic.com/science/2020/04/coronavirus-pandemic-is-giving-people-vivid-unusual-dreams-here-is-why/>

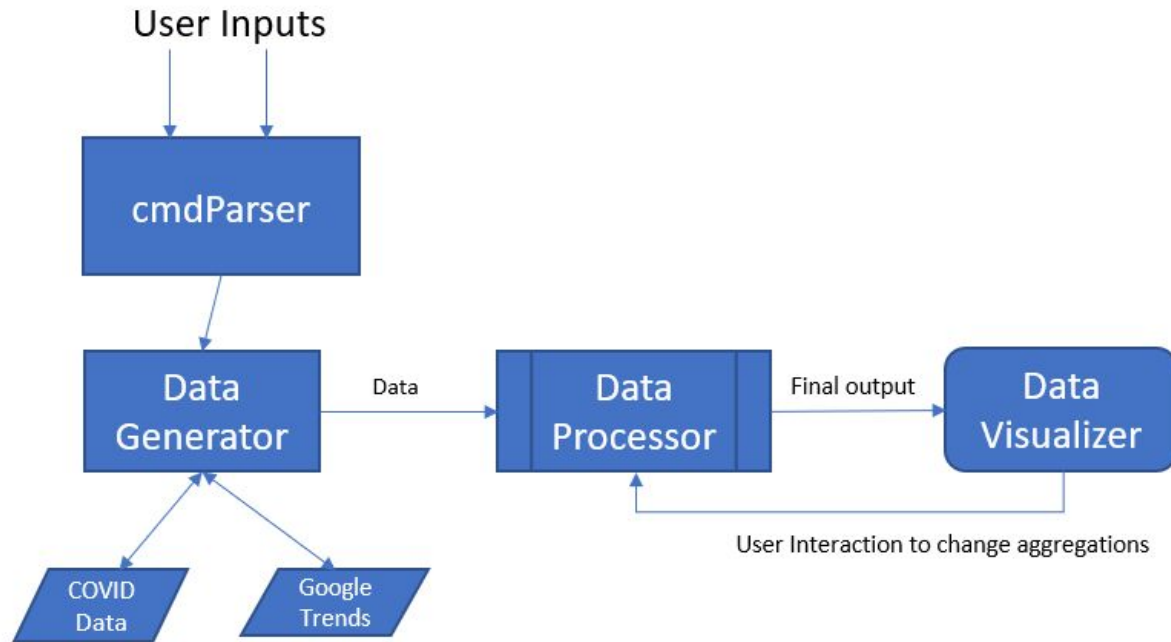
Keyword Search Comparison in Washington



Date	Confirmed	ConfirmedChange	Deaths	DeathsChange	Recovered	RecoveredChange	Country	State	Bars near me	Home workouts
2019-06-09	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	83.0	9.0
2019-06-16	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	78.0	9.0
2019-06-23	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	80.0	9.0
2019-06-30	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	91.0	8.0
2019-07-07	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	80.0	9.0
2019-07-14	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	81.0	9.0
2019-07-21	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	82.0	9.0
2019-07-28	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	85.0	8.0
2019-08-04	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	82.0	8.0
2019-08-11	0.0	0.0	0.0	0.0	0.0	0.0	United States	Washington	82.0	8.0

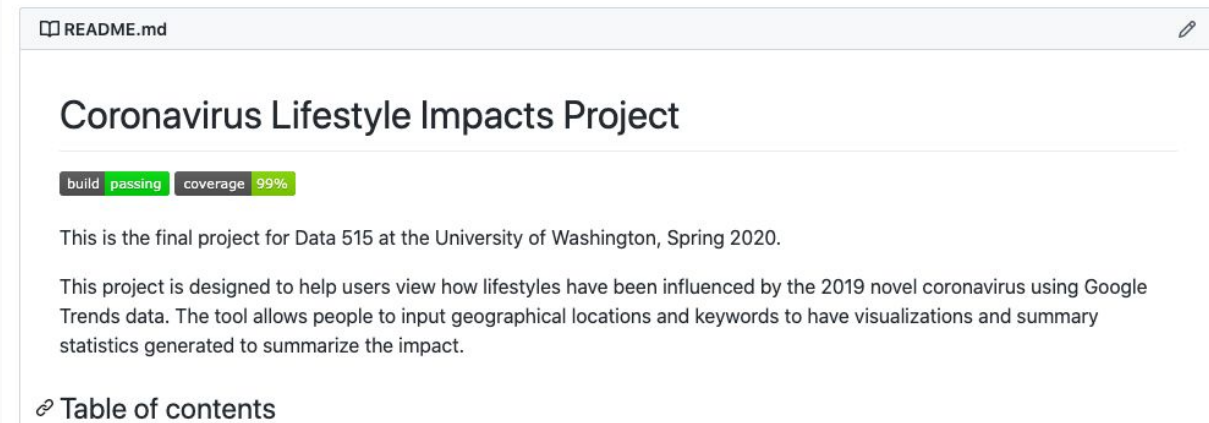


Components/Design



Repository Details

- coronavirus_lifestyle_impacts
 - modules
 - tests/
 - outputs/
- Docs
- Examples
- LICENSE
- Travis-CI
 - Integration test
 - Unit Tests
- Coverage report
- Jupyter Notebook (readable collaboration)



Python Dependencies

- Argparse
- Datetime
- Matplotlib
- Pandas
- Pytrends
- unittest
- US



Lessons Learned/Conclusions

- Even a fairly straightforward project can be tricky to execute well
- Frequent collaboration was very valuable (Slack + Zoom)
- Achieving perfect linting can be a hassle
- Some dependencies take time and/or money (Power BI)
- Writing tests first provides a lot of value
- Learnings from using the software
 - Some things haven't changed much
 - Others have had time to experience multiple waves of changes

Demo

- Command line
- Power BI