



COVID-19 DB

Coronavirus sucks.
Maybe this can help.

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Over 1 million people have passed away due to COVID-19 in the past year. Our database gathers various statistics on the virus in all countries and we hope it can help you.

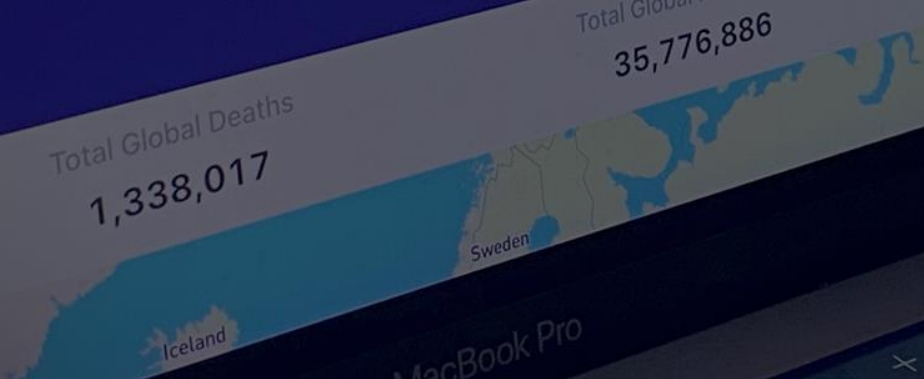
Nearly 1.5 million people have passed away due to COVID-19 in the past year. Our database gathers various statistics on the virus in all countries and we hope it can help you.

Doctor vector created by freepik - www.freepik.com

Total Global Deaths
1,338,017

Total Global Recoveries
35,776,886

Global Active
18,501,727



MacBook Pro

Our team



**Cameron
Doggett**

Junior Computer
Science Major from
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Back-end Developer



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**Yash
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Junior Computer
Science Major from
Katy, TX

Full Stack Developer

Tools



React



Antd



axios



Postman



SQLAlchemy



nivo



Jest



Selenium



Google Cloud



Flask

Purpose

Used to view/compare countries and their related data in a central location.

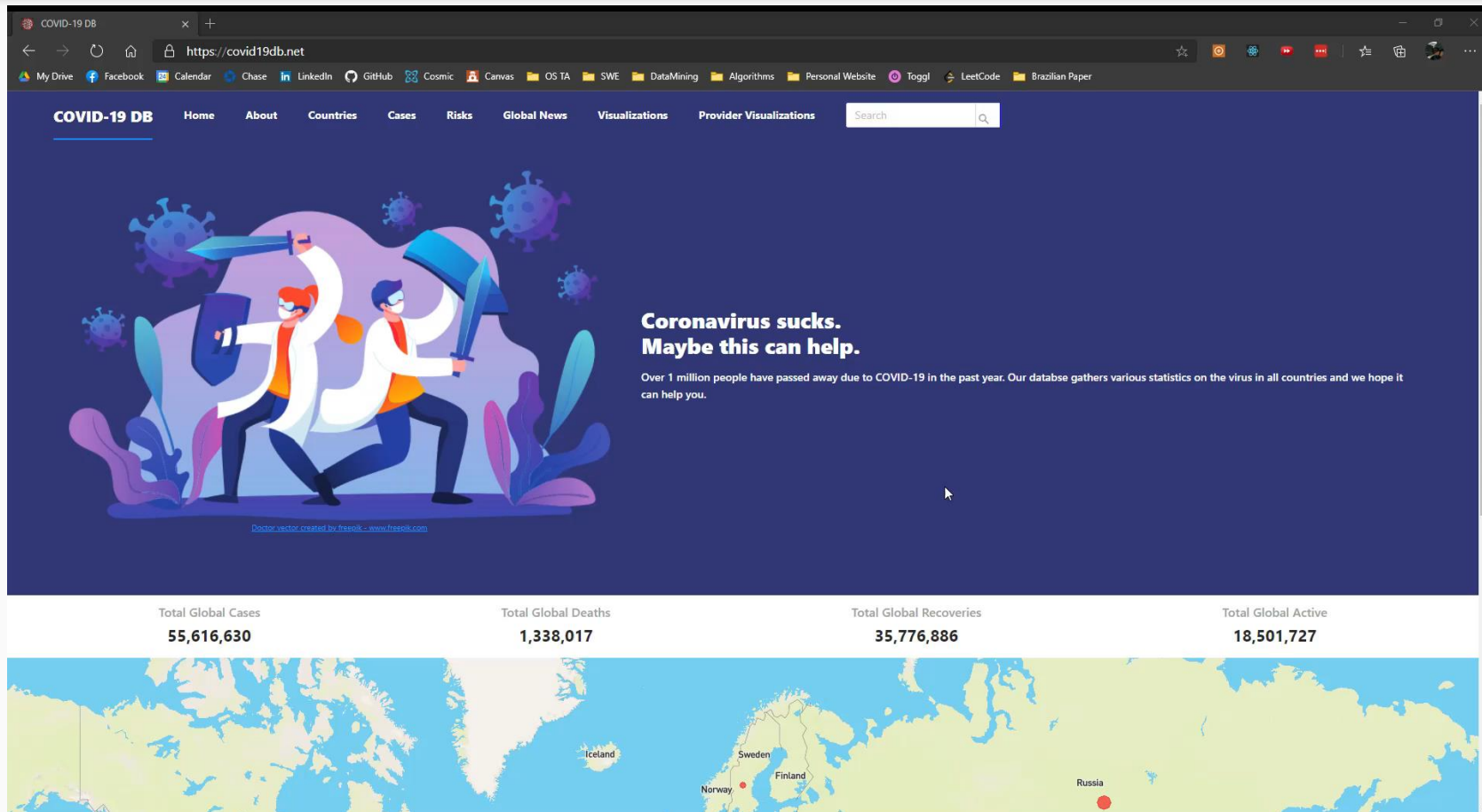
Challenges

Sorting and filtering in a non-tabular format presented its own issues, as we had countries laid out in a card view.

Statistics

- General Info (ISO Codes, Population, Languages, Currency)
 - Geographic Info (Latitude, Longitude, Bordering Countries, Region/Subregion)
 - Visuals (Capital Image, Capital Map, Country Flag)
 - Links (Country News, Related Links)
-

Countries Demo



Purpose

Used to view statistics regarding COVID-19 cases in each country.

Challenges

Preparing the data we had to create various trend lines that are useful.

Information

- Country Totals (Cases, Active Cases, Recoveries, Deaths, Tests)
- Recent Stats (Cases, Active Cases, Recoveries, Deaths, Tests)
- Rates (Fatality, Infection, Positivity, Recovery, Active)




Case Statistics Demo

Microsoft Edge File Edit View History Favorites Tools Profiles Tab Window Help

COVID-19 DB

https://covid19db.net

COVID-19 DB Home About Countries Cases Risks Global News Visualizations Provider Visualizations Search



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Total Global Cases	Total Global Deaths	Total Global Recoveries	Total Global Active
55 616 630	1 338 017	35 776 886	18 501 727

Risk Factor Statistics Model

Purpose

Used for viewing different country's risks during COVID-19

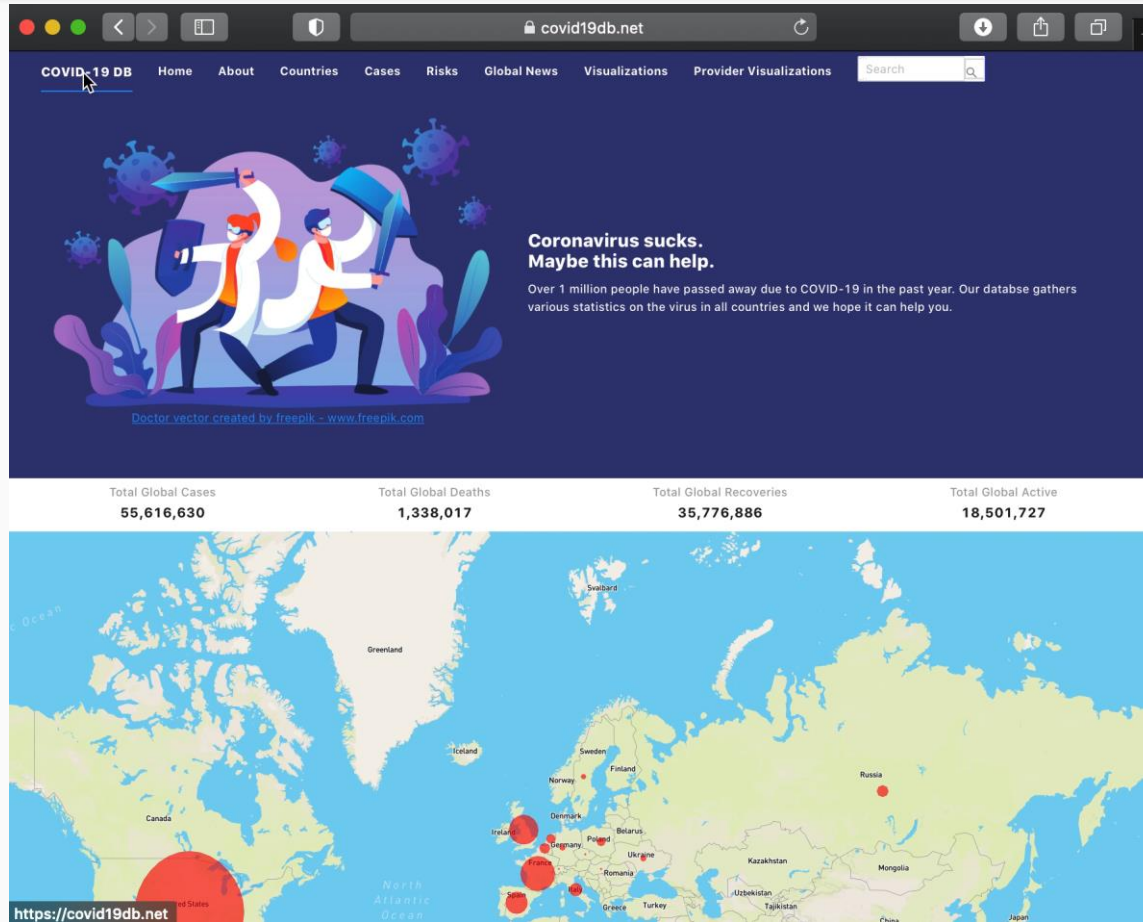
Demographic Risk Factors

- Life expectancy
- Human Development Index
- Population density
- Gini

Additional Health Risk Factors

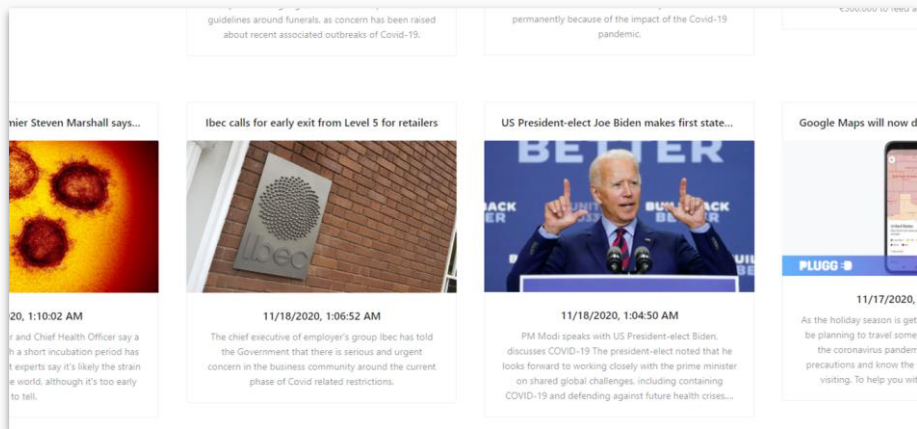
- Extreme poverty rate
 - Hospital beds per thousand
 - Cardiovascular death rate
 - Diabetes prevalence
 - Male / Female smokers
 - Handwashing Facility Access
 - Age
-

Risk Factor Statistics Demo

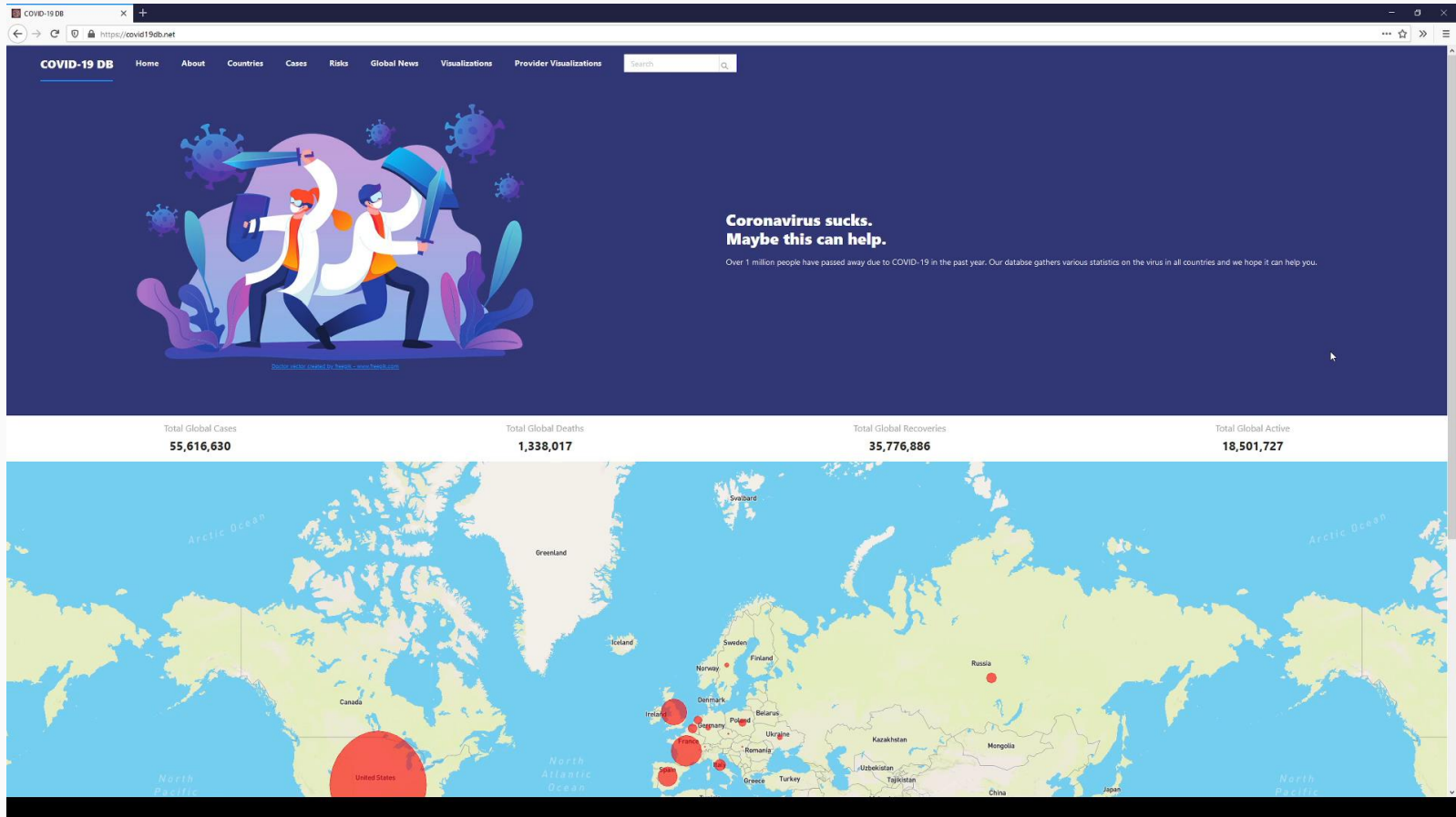


Global News

- Created at the request of a user in phase I
- Displays COVID-19 related news articles from around the globe
- Consumes our `/global-news` API endpoint
 - All articles were collected from News API



Global News Demo



Data Set

- Sources
 - APIs
 - REST Countries
 - Countries, risk factors
 - COVID-19 API
 - Cases, global stats
 - News API
 - Countries, global news
 - JSON files
 - OWID COVID-19 Dataset
 - Risk factors, cases

```
country": {  
  "codes": {  
    "alpha2Code": "US",  
    "alpha3Code": "USA"  
  },  
  "name": "United States"  
},  
diabetesPrevalence": 10.79,  
extremePovertyRate": 1.2,  
femaleSmokers": 19.1,  
gdpPerCapita": 54225.446,  
gini": 48.0,  
handwashingFacilities": null,  
hospitalBedsPerThousand": 2.77,  
humanDevelopmentIndex": 0.924,  
lifeExpectancy": 78.86,  
location": {
```

- Endpoints
 - Model data
 - `/countries`
 - `/countries/<identifier>`
 - `/case-statistics`
 - `/case-statistics/<identifier>`
 - `/risk-factor-statistics`
 - `/risk-factor-statistics/<identifier>`
 - Miscellaneous
 - `/global-news`
 - `/global-stats`
 - Search
 - `/search`
-

Model Data API Endpoints

- Endpoints
 - GET
 - `/countries`
 - `/countries/<identifier>`
 - `/case-statistics`
 - `/case-statistics/<identifier>`
 - `/risk-factor-statistics`
 - `/risk-factor-statistics/<identifier>`
 - Query parameters
 - `attributes`
 - Optional
 - Specifies which model attributes to include in the JSON response
-

Miscellaneous API Endpoints

- Endpoints

- GET

- `/global-news`

- Collection of COVID-19 related news articles from sources around the world
 - All article data scraped from News API
 - Consumed by global news page

- `/global-stats`

- Global totals and daily new values for COVID-19
 - Data was scraped from COVID-19 API
 - Consumed by splash page



Search API Endpoint

- Endpoint
 - GET
 - `/search`
 - Performs a search on the database data
 - Responds with a list of countries that are related to the given query
 - Implementation leverages the full text search feature available in PostgreSQL
 - Restricted to textual data (which is primarily found within the countries model)
 - Consumed by frontend sitewide search
 - Query parameters
 - `query`
 - Required
 - The search query that the client requests
-

Search API Endpoint Demo

The screenshot shows a web browser window with the URL <https://covid19db.net/search>. The page has a dark blue header with the title "COVID-19 DB" and a navigation menu with links: Home, About, Countries, Cases, Risks, Global News, Visualizations, and Provider Visualizations. A search bar is located in the header, and below it, the word "Search" is displayed. A light blue box contains the text: "Try searching for countries, ISO codes, pages, capitals, or regions".

Page	Home
Page	About
Page	Countries
Page	Cases
Page	Risks
Page	Global News
Page	Visualizations
Page	Provider Visualizations
Countries	Zimbabwe /ZW_ZWI
Case Statistics	Zimbabwe /ZW_ZWI

At the bottom of the table, there is a pagination bar with the following controls: < 1 2 3 4 5 57 > 10 / page v

Project Critiques

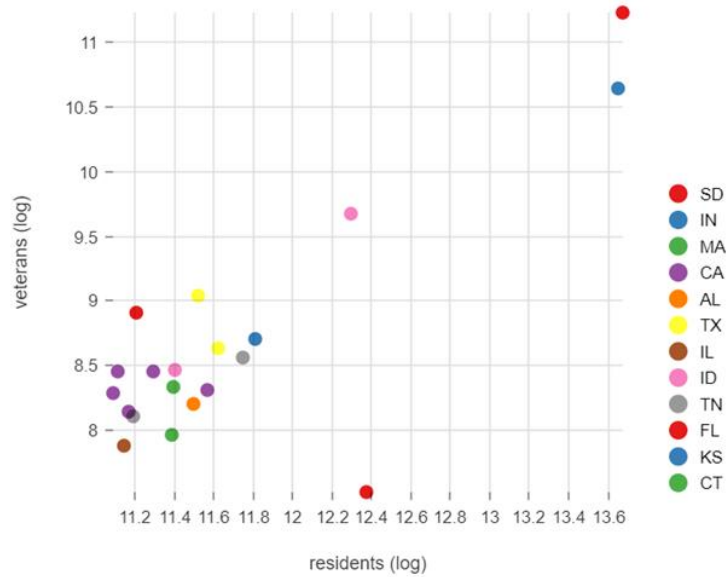
- **What did we do well?** Communication
- **What did we learn?** How to build a web app
- **What did we teach each other?** What we learned
- **What can we do better?** Testing
- **What effect did the peer reviews have?** Not much
- **What puzzles us?** Attendance

Provider Critiques

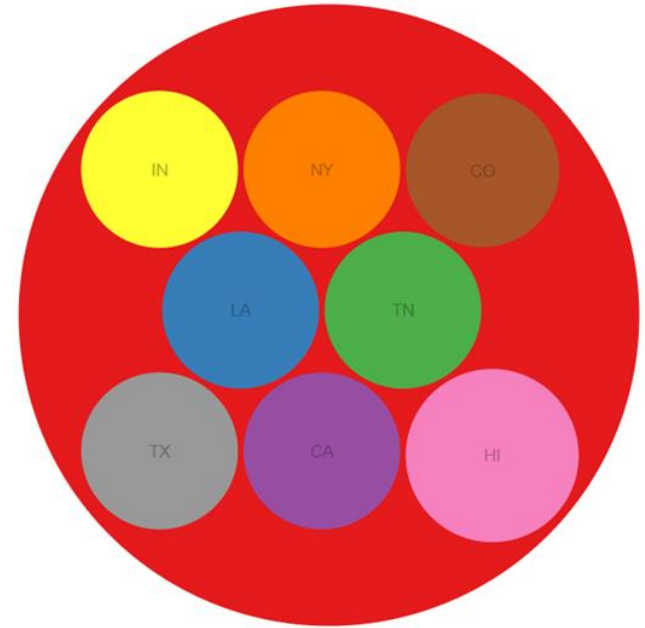
- **What did they do well?** Useful topic
- **How effective was their RESTful API?** Somewhat
- **How well did they implement your user stories?** Mostly
- **What did we learn from their website?** Affordability
- **What can they do better?** Production stability
- **What puzzles us about their website?** Filtering

Provider Visualizations

Veterans vs Total Residents (Log Scale)

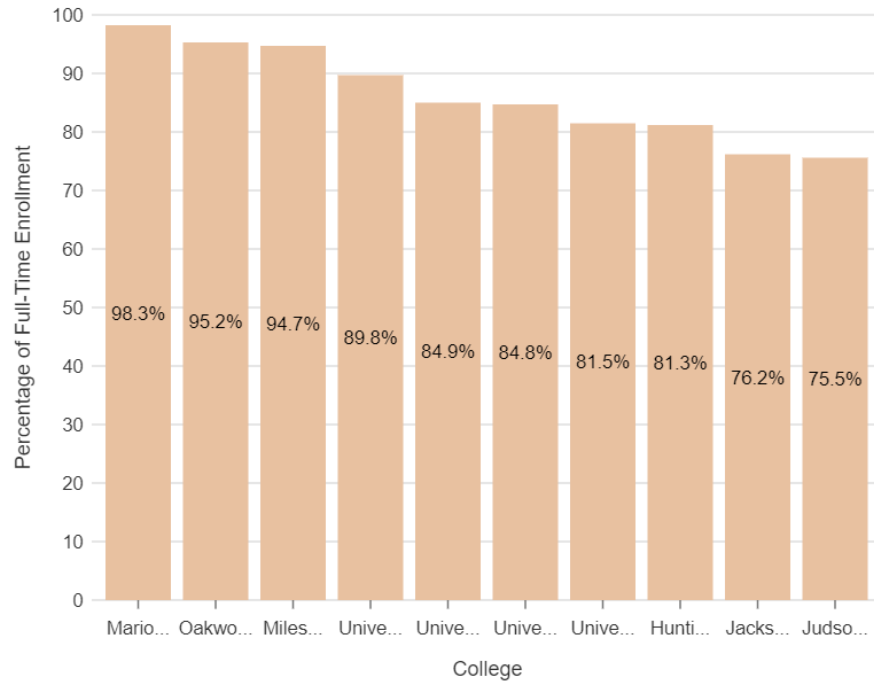


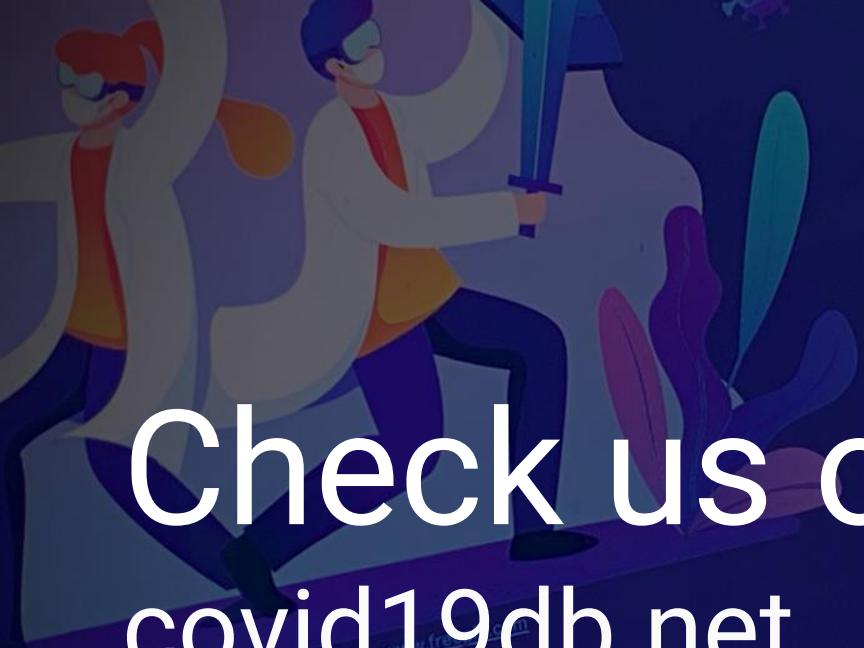
Average Restaurant Price Level by State



Provider Visualizations

Percentage of Full-Time Enrollment at Colleges





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Check us out!

covid19db.net

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Iceland

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