

DoorNext

DoorNext is a one-stop platform for settlers to search for neighborhood information in a quick and convenient manner. Our vision is to help settlers to envision their future life when moving next to a new neighborhood. Relocation has always been a traumatic experience with all the uncertainties. We believe there is no better way to get informed quickly for decision making. DoorNext erases all the hassle by providing you comprehensive details of a certain neighborhood, including demographics, events, and weather. You could fully utilize our platform before, during and after your moving.

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Technology

Python 3.8

Make sure that the below mentioned packages with corresponding version are installed.

Otherwise, the program may not compile, or the output may deviate from the expected outcome.

1. matplotlib (version 3.4.3 or above)
2. pandas (version 1.3.3)
3. beautifulsoup4 (version 4.10.0 or above)
4. requests (version 2.25.1)
5. json5
6. selenium (version 3.141.0 or above)
7. seaborn (version 0.11.1 or above)
8. numpy
9. tkinter
10. datetime
11. urllib3
12. pillow (version 8.3.2 or above)
13. opencv-python (version 4.2.0 or above)
14. imageio (version 2.9.0 or above)

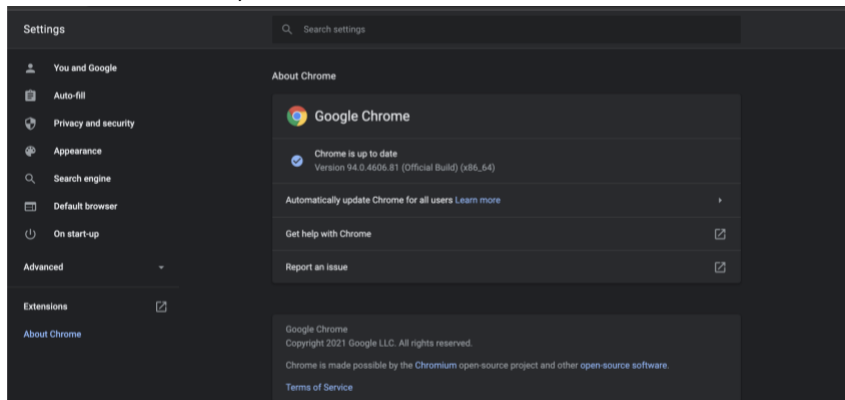
Installation

Minimum Hardware requirements

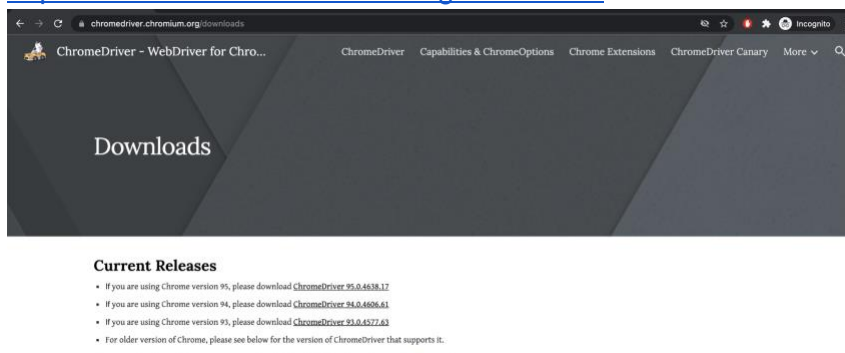
- Modern Operating System:
 - Windows 8 or higher
 - Mac OS X 10.11 or higher, 64-bit
 - Linux: RHEL 6/7, 64-bit (almost all libraries also work in Ubuntu)
- x86 64-bit CPU (Intel / AMD architecture)
- 2 GB or higher RAM
- 2 GB free disk space

Installing WebDriver for Chrome - This is a requirement for the Selenium package.

1. Before downloading chromedriver, check Google Chrome version, make sure it's updated. (To check the Chrome version: Go to Settings and on the left navigation, click on About Chrome).



2. As per the chrome version, download the chrome driver from <https://chromedriver.chromium.org/downloads>



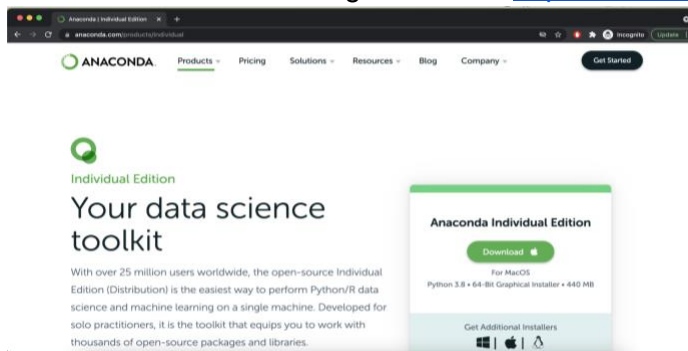
3. Download the extension as per your operating system and store the **chromedriver** in the project directory under the **driver** folder



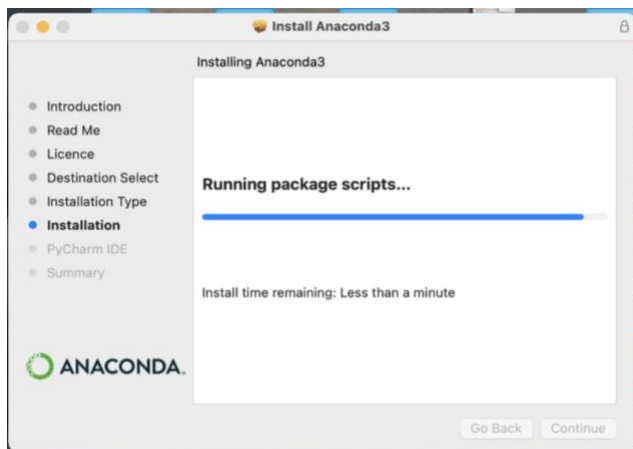
4. Unzip the chromedriver and install the driver.
 - a. For Mac Users -
 - i. Allow the chromedriver to be installed. You will find this in System Preference under Security & Privacy - General tab (this step needs to be done while running the program).
 - b. For Windows Users -
 - i. Allow the chromedriver to be installed. (If you are unable to install the same just add an exception in the firewall)

Installing Anaconda Navigator and PyCharm -

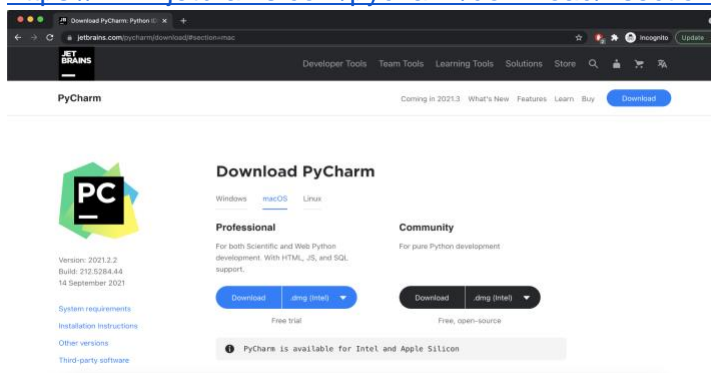
1. Download Anaconda Navigator from - <https://www.anaconda.com/products/individual>



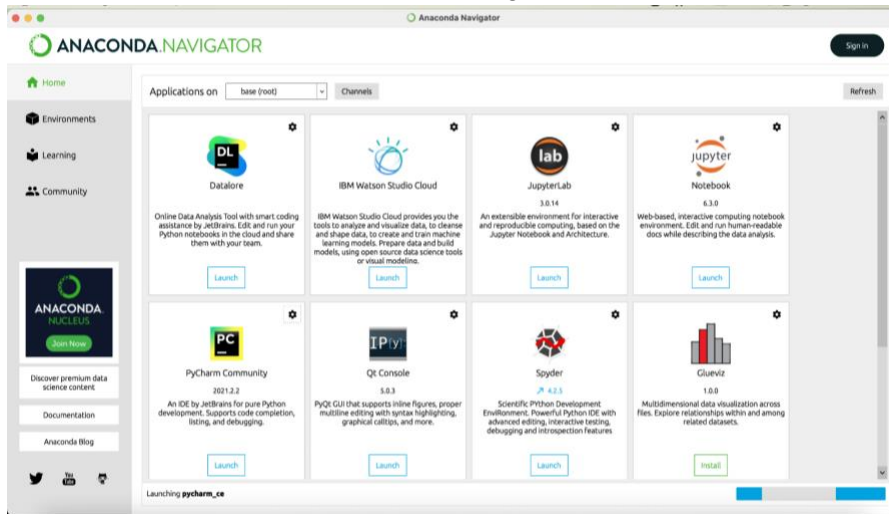
2. Follow on screen instructions



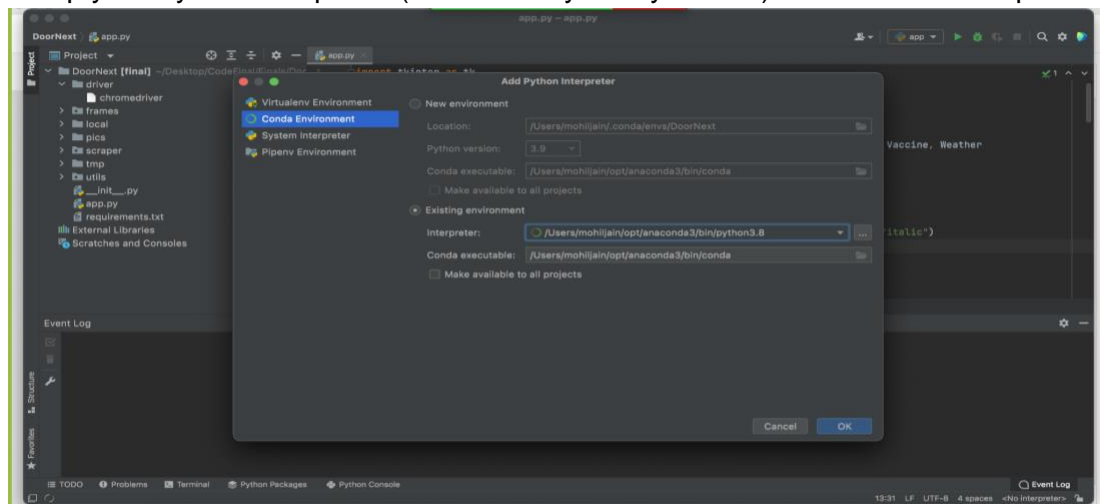
3. Download PyCharm (Community Version) software from - <https://www.jetbrains.com/pycharm/download/#section=mac>.



4. Install the software on your computer by following the on-screen instructions.
5. Launch PyCharm from Anaconda Navigator. It is highly recommended to use PyCharm instead of other IDEs due to known bugs in other environments.



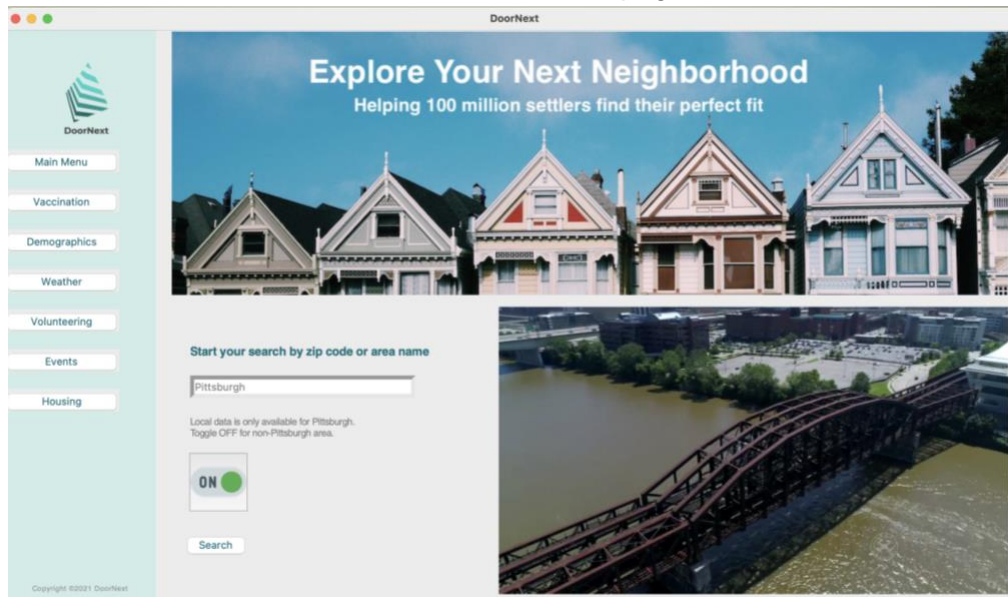
6. Set up your Python Interpreter (If not already set by default) - Refer to the sample



7. Open Terminal or Command Prompt and install the below mentioned packages. If necessary, please also install the latest version of the other in-built packages in the Technology section on page 1.
 - pip install selenium
 - pip install opencv-python
 - pip install tkinter
8. Once setting up all the software and installing the packages, open the Project (DoorNext) in PyCharm and execute the app.py file.

Run

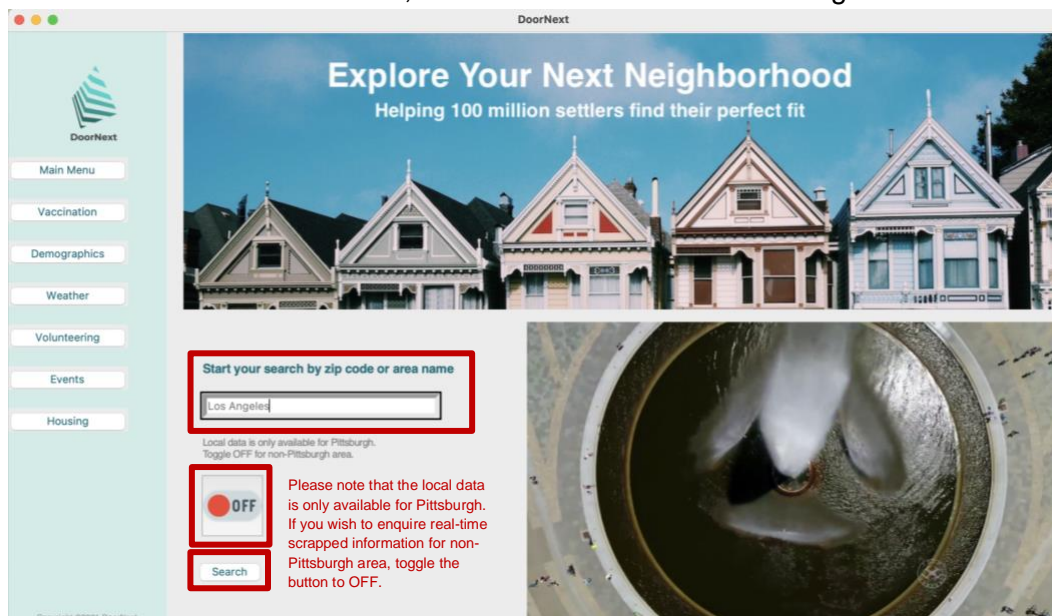
DoorNext gets your input and returns you different categories of data based on your location or area of interest. The screenshot below shows the home page, which is the main menu.



How to use DoorNext?

For detailed demo, you may visit the video <https://youtu.be/r3tU4bMWe4s>.

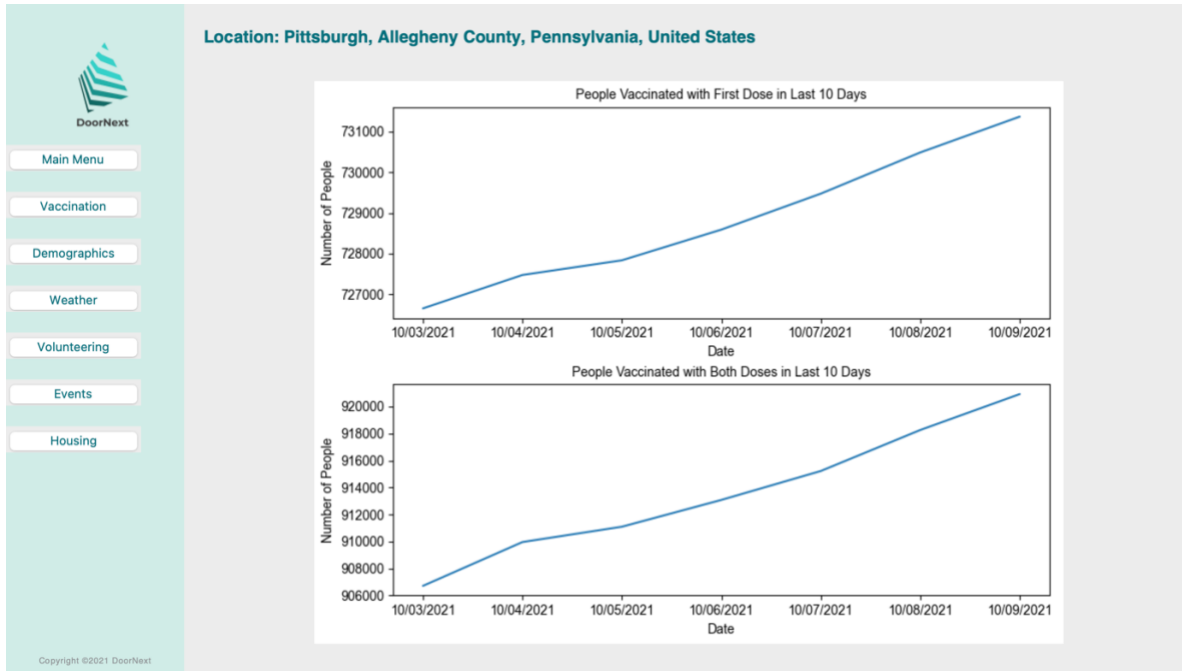
1. On the home page, input the area name or zip code that you want to search the information for. The search is case insensitive, and the default value is Pittsburgh.



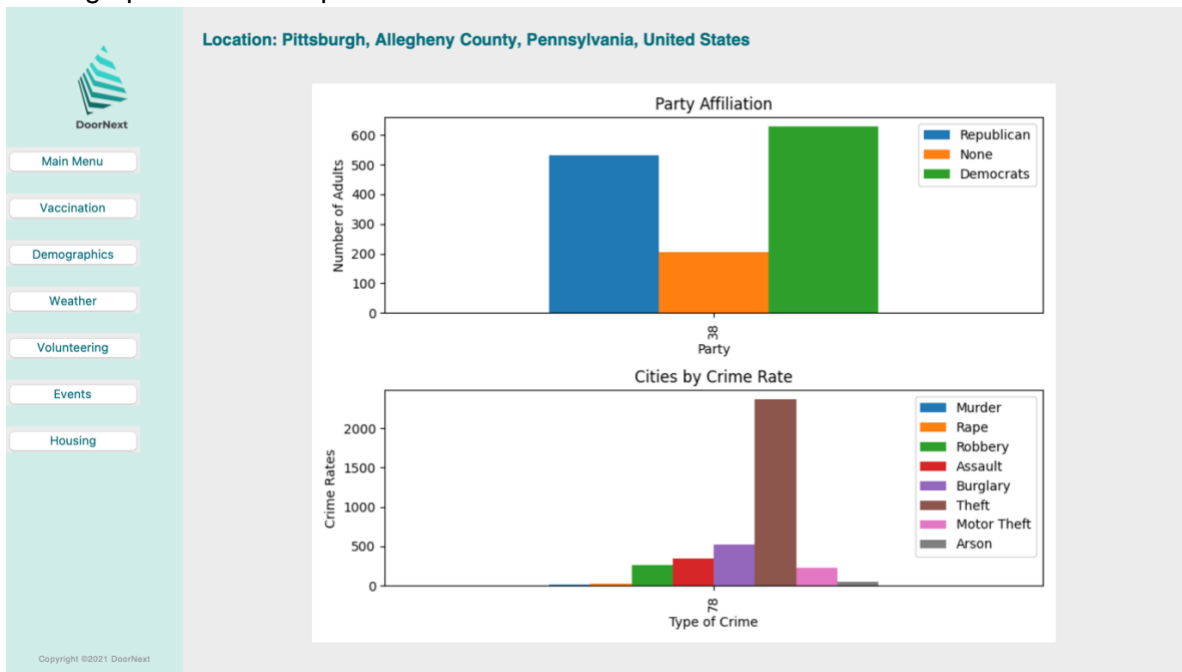
2. Click “search” to start browsing the information for your neighborhood. It will automatically return you the vaccination data. You can also navigate to the other pages using the sidebar directly instead of clicking “search”.

Six categories of information

1. Vaccination: COVID-19 vaccination data



2. Demographics: Political parties and crime rates



3. Weather: Current atmospheric data



- Main Menu
- Vaccination
- Demographics
- Weather
- Volunteering
- Events
- Housing

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Location: Pittsburgh, Allegheny County, Pennsylvania, United States

| | | |
|-------------|------------------------------|-------------------------------------------------------|
| Temperature | 66°F | It is fresh |
| Forecast | Forecast: 76 / 58 | Max/Min expected temperature for today |
| Feels Like | Feels Like: 66 | |
| Wind | Wind: 6 mph ↑ from Southeast | |
| Location | Allegheny County Airport | Information was retrieved from this specific location |
| Time | Oct 9, 2021 at 8:38:32 pm | |
| Visibility | 10 mi | Excellent visibility |
| Pressure | 30.08 "Hg | Normal pressure is associated with steady weather |
| Humidity | 73% | Lots of moisture in the air, very uncomfortable |
| Dew | 57 °F | |

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4. Volunteering: Occurring volunteering activity data



- Main Menu
- Vaccination
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- Weather
- Volunteering
- Events
- Housing
- Event Map

DoorNext


Location: Pittsburgh, Allegheny County, Pennsylvania, United States

What's Hot Here?

| Event Name | Date | Venue |
|----------------------------------------------------------------------|-------------------------|----------------------------|
| Is Jesus Christ God? Lets talk Christianity! | Oct 01 2021 at 02:00 pm | N17 6XJ |
| Oktoberfest at Santa Anita Park | Oct 03 2021 at 11:30 am | Los Angeles, California |
| CraftoberFest L.A. | Oct 12 2021 at 01:30 pm | Los Angeles, California |
| Uberfest - The Ultimate Oktoberfest | Oct 12 2021 at 05:00 pm | Los Angeles, California |
| Under \$20 - Oktoberfest | Oct 19 2021 at 06:00 pm | Los Angeles, California |
| Screening of Dead Man (1995) | Oct 09 2021 at 01:30 pm | The Autry |
| CHOCOLATE AND ART SHOW - LOS ANGELES | Feb 18 2022 at 08:00 pm | The Vortex |
| The Art of Flamenco Dinner Show | Nov 17 2021 at 10:00 pm | Los Angeles, California |
| Conejo Uncorked - Wine Festival, Live Music & More | Oct 10 2021 at 06:00 pm | Los Angeles, California |
| The After Hours Tour - The Weeknd | Mar 18 2022 at 05:00 pm | STAPLES Center |
| Cleopatra: BUMMER TOUR | Oct 05 2021 at 09:00 pm | The Echo |
| Maxin Halloween Party - Los Angeles | Oct 31 2021 at 09:00 pm | T.B.A. |
| Quiet Events US Tour - Los Angeles, CA | Jan 01 2023 at 09:00 pm | Los Angeles, CA |
| Halloween Yacht Party | Oct 31 2021 at 07:30 pm | Los Angeles, California |
| RUFUS DU SOL | Nov 12 2021 at 07:00 pm | Banc of California Stadium |
| Jonathan McReynolds and Mali Music | Oct 13 2021 at 07:00 pm | The Novo DTLA |
| Bino Rideaux - 2nd Show Added! | Oct 02 2021 at 08:00 pm | The Novo DTLA |
| Castle Park Amusement Park - (Tickets & Info Here) | Nov 09 2021 at 10:00 am | Los Angeles, California |
| KCRW & Gustavo's Great Tortilla Tournament of Champions | Oct 10 2021 at 10:00 am | Smorgasburg LA |
| Sherry Vine & Jackie Beat: Best Frenemies! | Oct 01 2021 at 08:30 pm | Catalina Jazz Club |
| Weekends Digital Marketing Training Course for Beginners Los Angeles | Oct 02 2021 at 08:00 am | UpSkill Center |

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5. Events: Occurring events data



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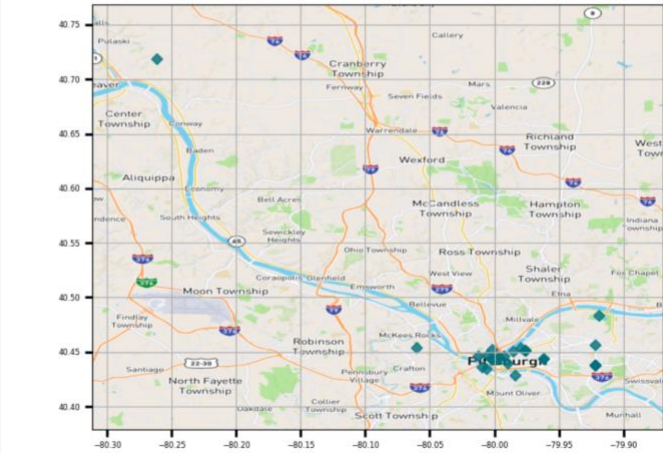
Here you can choose to view the events in a map format by clicking “Event Map” on the sidebar. The button will only appear when you click “Events”.



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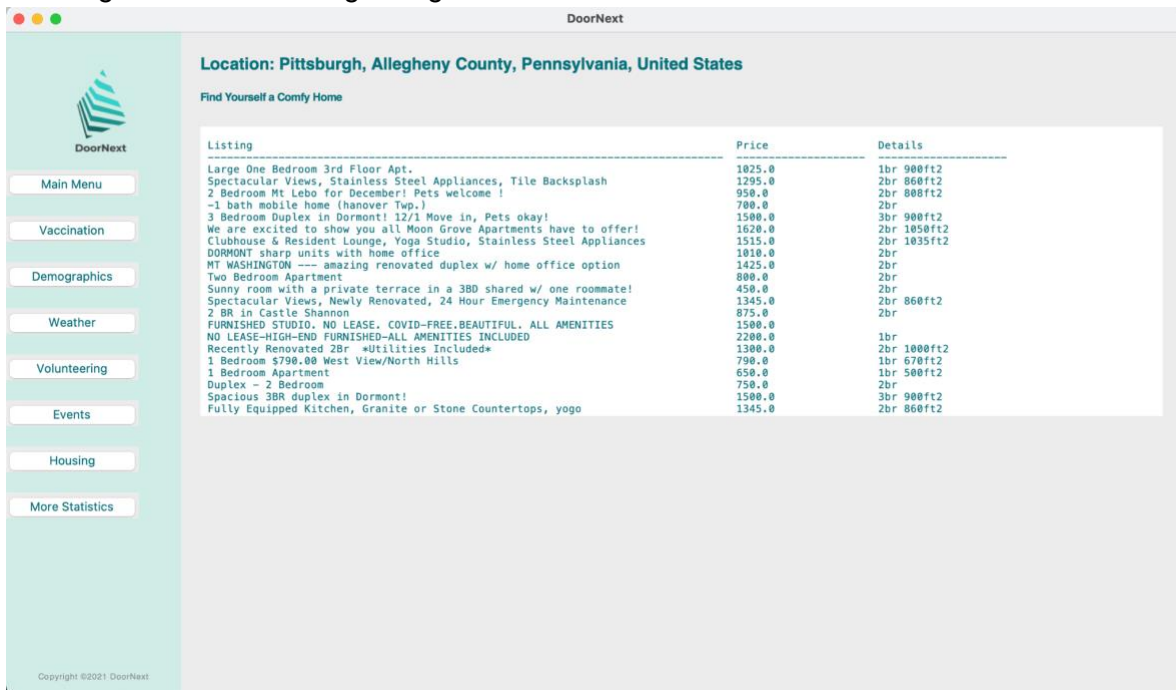
DoorNext

Location: Pittsburgh, Allegheny County, Pennsylvania, United States

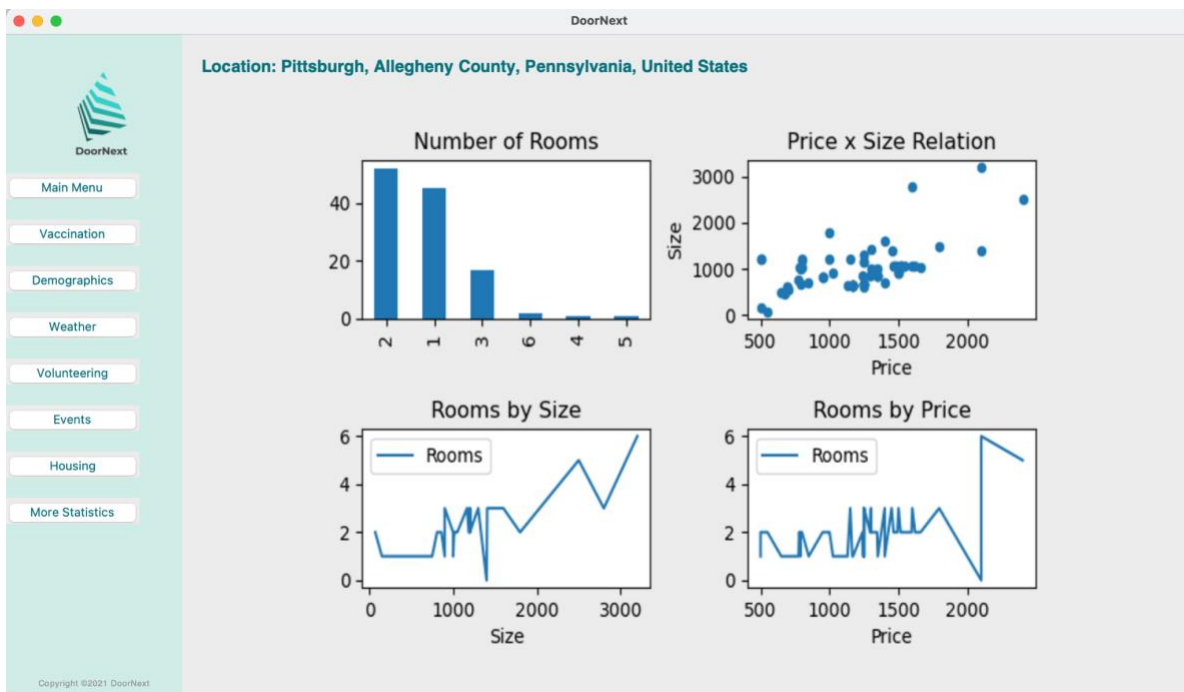


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6. Housing: Available housing listings



The “More Statistics” tab summarizes the aggregated statistics of the real estimate market in the neighborhood. Again, the button will only appear when you click “Housing”.



Expected Warnings

Depending on the matplotlib version, the graph appearance may change.

Credits

We would like to express special thanks to

- IQAir - Air quality
<https://www.iqair.com/us/air-pollution-data-api>
- All Events
<https://allevents.in>
- CDC
<https://data.cdc.gov/api/views/8xkx-amqh/rows.csv?accessType=DOWNLOAD>
- Craigslist
<https://pittsburgh.craigslist.org/d/apartments-housing-for-rent/search/apa>
- Create the Good
<https://createthegood.aarp.org/volunteer-search/>
- Weather
<https://www.timeanddate.com/weather/usa/pittsburgh>
- Demographics - Crime rate -
https://en.wikipedia.org/wiki/List_of_United_States_cities_by_crime_rate
- Demographics - Political Affiliations
<https://www.pewforum.org/religious-landscape-study/compare/party-affiliation/by/state/>
- Mapbox
<https://gist.github.com/busybus/b316596556933f7697671fd33f31fe87>
- freeCodeCamp.org for tkinter course
<https://www.youtube.com/watch?v=YXPyB4XeYLA>
- OpenStreetMap
- Stack Overflow community

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