



# Introduction to Geospatial Visualization

Hwee-Xian TAN

17 Aug 2021

0930 hrs – 1230 hrs

# // About



Hwee-Xian TAN

[hxtan.info](http://hxtan.info)



Ph.D. ('11)



Scientist ('12 - '15)



Scientist ('15 - '17)  
Asst. Prof ('18 - '20)  
Adjunct Faculty ('21 - )



Consultant ('19 - )

# // Learning Objectives

## 1 Basics

1.1 What is Folium, and what can it be used for?

1.2 Plotting markers, circles and circle markers

1.3 Adding images

1.4 Adding convenient tools

## 2 S\$1 Million Dollar Resale Flats in SG

2.1 Getting coordinates of flats from OneMap API

2.2 Plotting flat locations using ClusterMap

2.3 Plotting boundaries

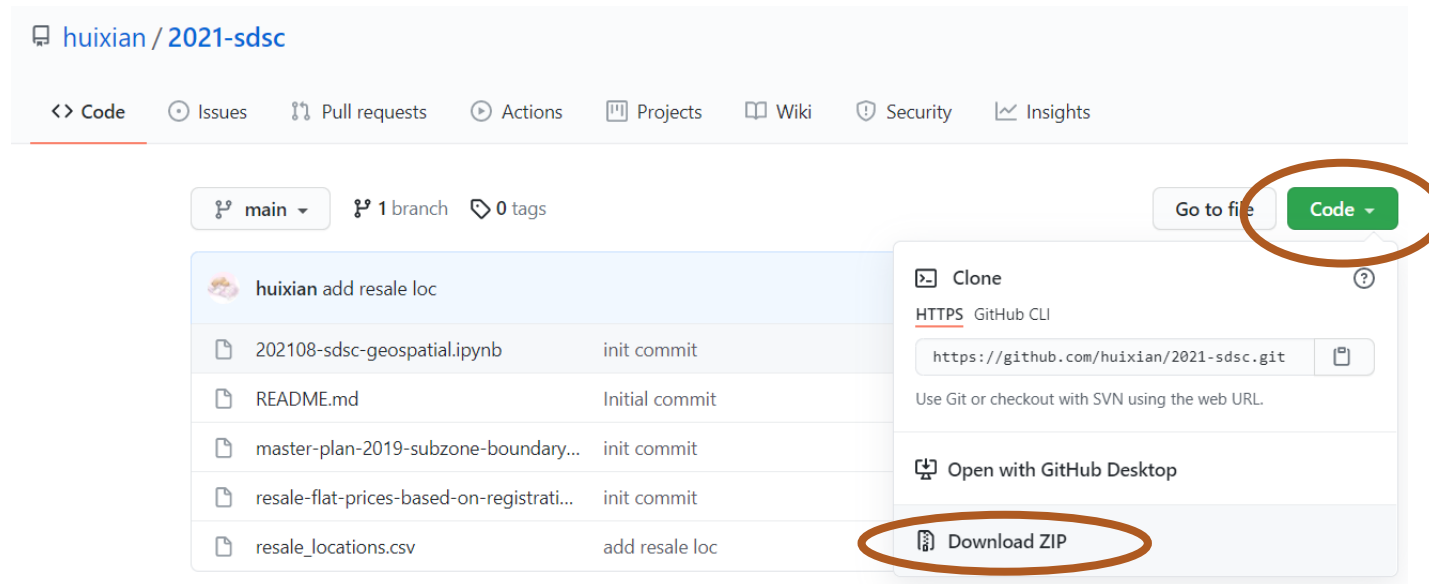
2.4 Plotting choropleths

## 3 Timestamped Path

# Let's Get Started! 😊

## Step 1

Go to <https://github.com/huixian/2021-sdsc> and download the repository in a zip file  
Extract the zip file to your local machine



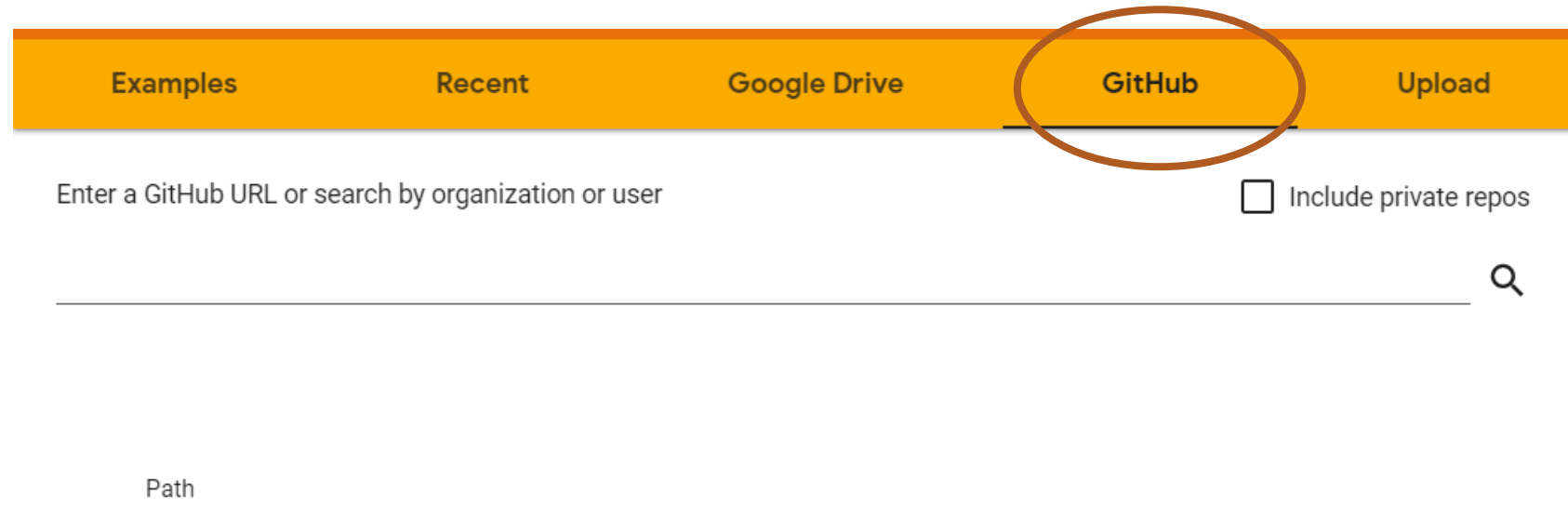
# Let's Get Started! 😊

## Step 2

Go to <https://colab.research.google.com/> and sign in using your Google account

## Step 3

Click on the GitHub tab



The screenshot shows the Google Colab interface. At the top, there is a navigation bar with five tabs: "Examples", "Recent", "Google Drive", "GitHub", and "Upload". The "GitHub" tab is highlighted with a brown oval. Below the navigation bar, there is a search bar with the placeholder text "Enter a GitHub URL or search by organization or user". To the right of the search bar is a checkbox labeled "Include private repos". Below the search bar is a search icon (magnifying glass). At the bottom, there is a text input field labeled "Path".

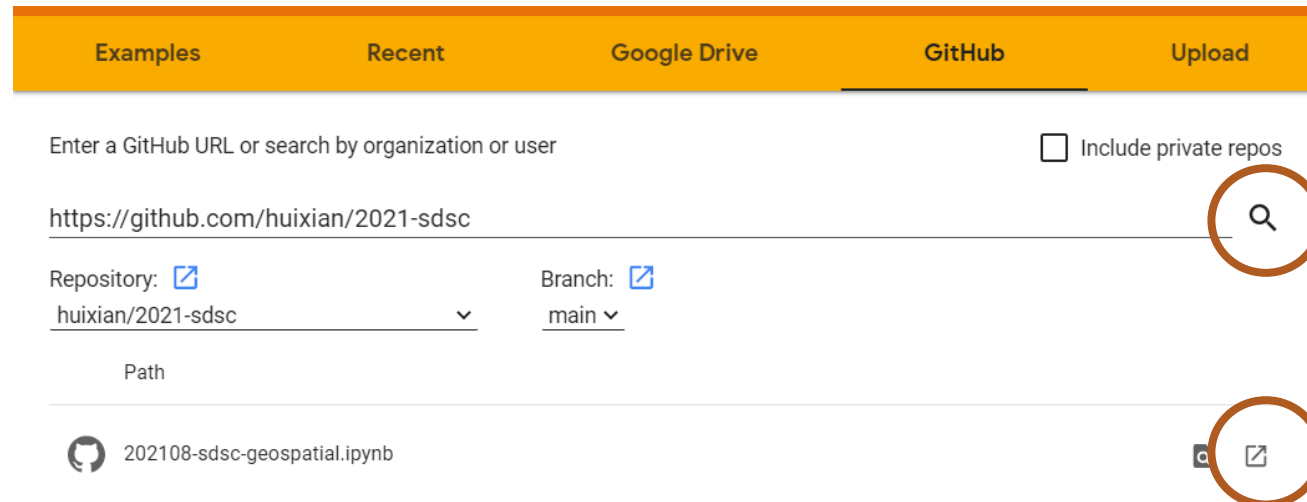
# Let's Get Started! 😊

## Step 4

Search for the following GitHub URL: <https://github.com/huixian/2021-sdsc>

## Step 5

Click on “Open notebook in new tab”





Examples Recent Google Drive **GitHub** Upload

Enter a GitHub URL or search by organization or user ☐ Include private repos

<https://github.com/huixian/2021-sdsc>

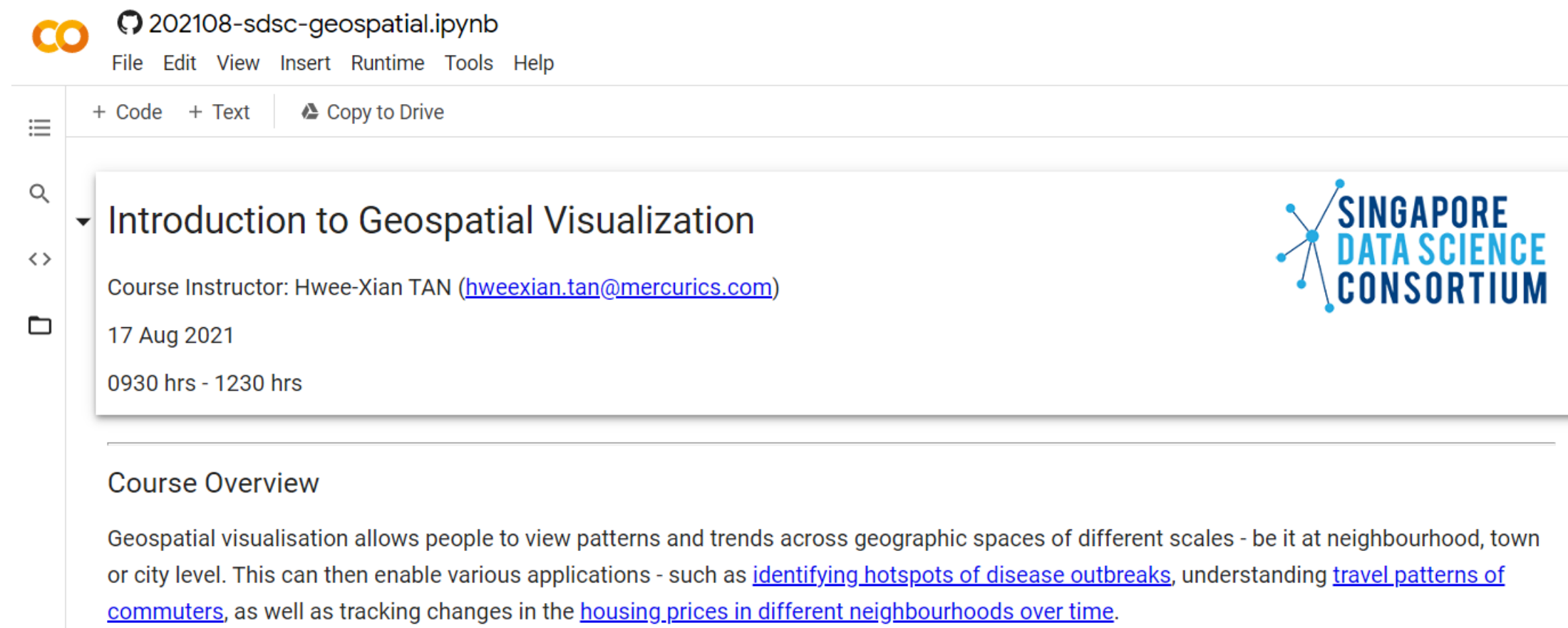
Repository: [🔗](#) huixian/2021-sdsc Branch: [🔗](#) main

Path

 202108-sdsc-geospatial.ipynb 

# Let's Get Started! 😊

You should now see this page!



The screenshot shows a Google Colab notebook titled "202108-sdsc-geospatial.ipynb". The interface includes a top menu bar with "File", "Edit", "View", "Insert", "Runtime", "Tools", and "Help". Below the menu bar, there are tabs for "+ Code", "+ Text", and a "Copy to Drive" button. On the left side, there is a sidebar with icons for a menu, search, code editor, and a file explorer. The main content area displays the notebook title "Introduction to Geospatial Visualization" with a dropdown arrow. Below the title, it lists the course instructor as Hwee-Xian TAN with the email [hweexian.tan@mercurics.com](mailto:hweexian.tan@mercurics.com), the date "17 Aug 2021", and the time "0930 hrs - 1230 hrs". On the right side of the notebook, there is a logo for the "SINGAPORE DATA SCIENCE CONSORTIUM". Below the notebook content, there is a section titled "Course Overview" which describes geospatial visualization and its applications, including [identifying hotspots of disease outbreaks](#), [understanding travel patterns of commuters](#), and [tracking changes in the housing prices in different neighbourhoods over time](#).

202108-sdsc-geospatial.ipynb

File Edit View Insert Runtime Tools Help

+ Code + Text Copy to Drive

Introduction to Geospatial Visualization

Course Instructor: Hwee-Xian TAN ([hweexian.tan@mercurics.com](mailto:hweexian.tan@mercurics.com))

17 Aug 2021

0930 hrs - 1230 hrs

SINGAPORE DATA SCIENCE CONSORTIUM

### Course Overview

Geospatial visualisation allows people to view patterns and trends across geographic spaces of different scales - be it at neighbourhood, town or city level. This can then enable various applications - such as [identifying hotspots of disease outbreaks](#), understanding [travel patterns of commuters](#), as well as tracking changes in the [housing prices in different neighbourhoods over time](#).

**R WE THERE YET?**



**WE'VE ONLY BEEN DRIVING FOR  
1 MINUTE AND THERE'S 2 HOURS TO GO.**



# Let's Get Started! 😊

## Step 6

Click on the upload button on the left hand panel.

Upload the following 3 files (that were extracted from the zip file).

