#### **CRDDS – Center for Research Data & Digital Scholarship**

## Introduction to Interactive Data Visualization with Tableau

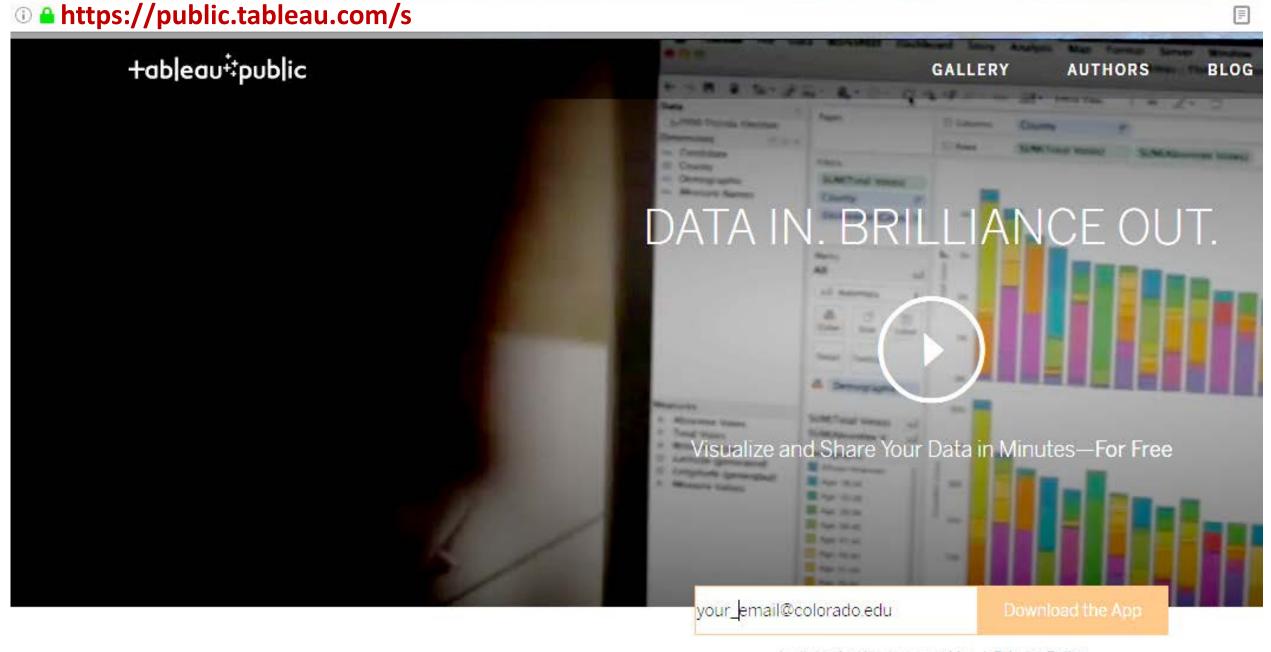
**Presented by Tim Dunn** 

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**CU Earth Lab** 

**CU Research Computing** 

**CRDDS** 



#### Tableau Desktop

Public Edition

#### Welcome to Tableau

Before you install the product, you must read and accept the license agreement.

Tableau Public 10.5 (10500.18.0210.2209) license terms.



☑ I have read and accept the terms of the license agreement.

Install



#### Tableau Public 10.5 (10500.18.0210.2209)

#### Install customizations

Install location:

C:\Program Files\Tableau\Tableau Public 10.5

Browse...

- ✓ Create a desktop shortcut
- ✓ Create a Start menu shortcut
- ☑ Check for Tableau product updates

#### Tableau Desktop

Public Edition

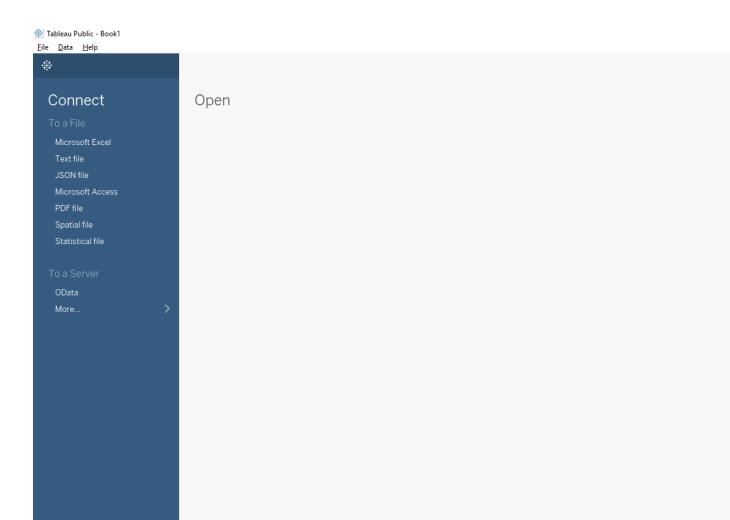
### Tableau Public 10.5 (10500.18.0210.2209)

#### **Progress**



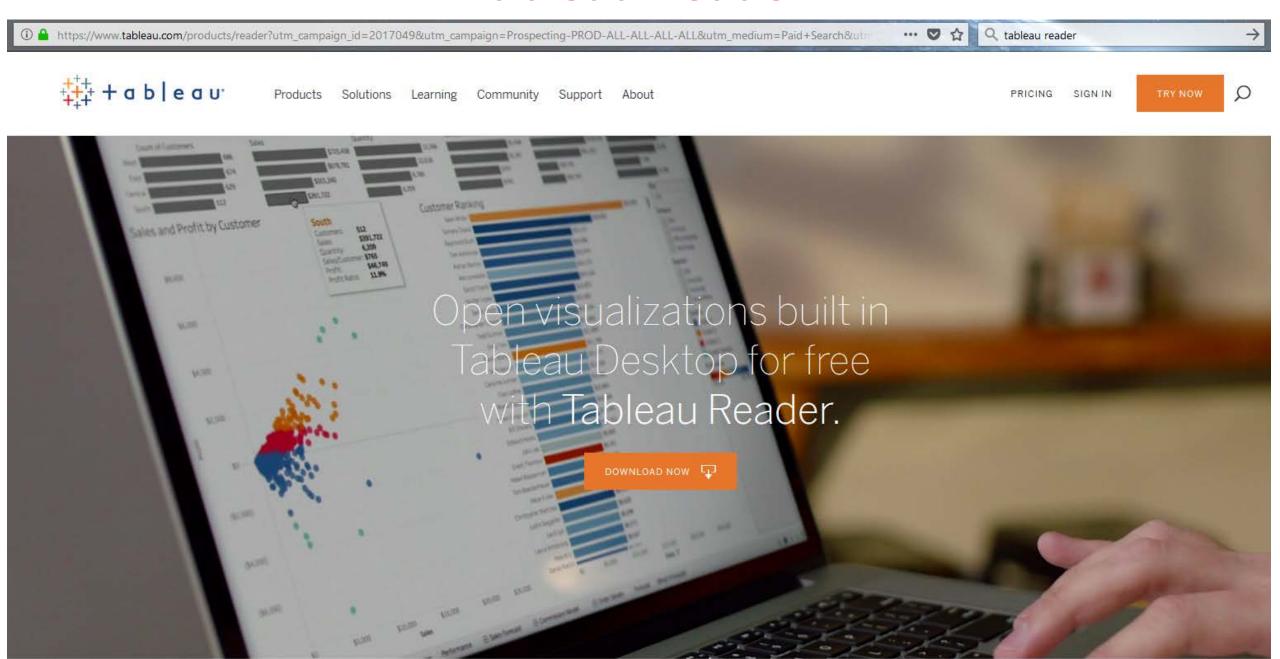
#### Installing:

Tableau Public 10.5 (10500.18.0210.2209)

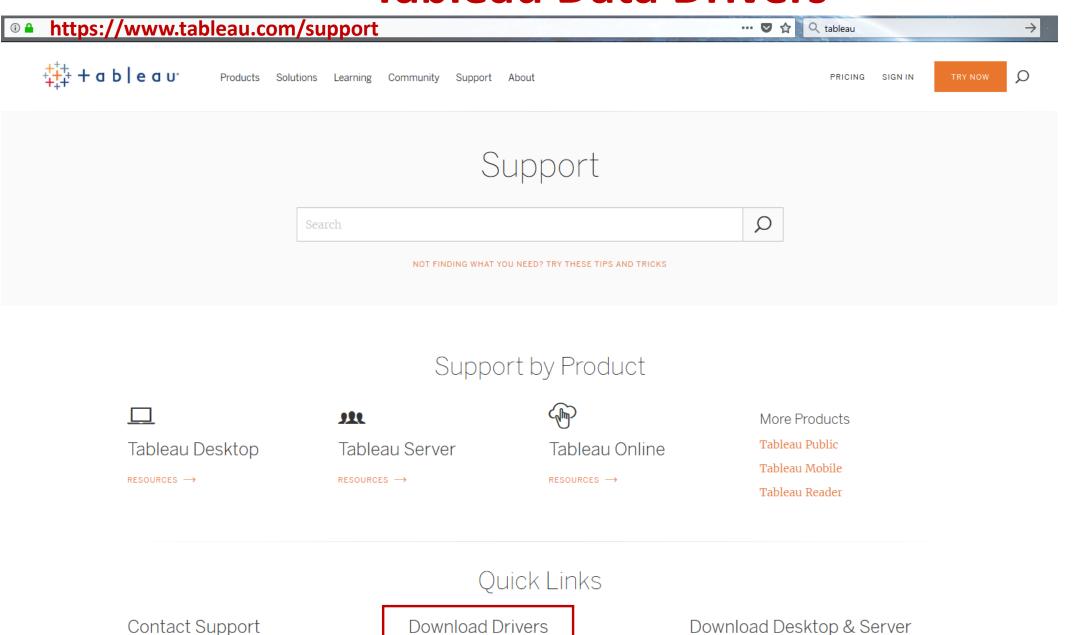


Open from Tableau Public

#### **Tableau Reader**



#### **Tableau Data Drivers**



ALL VERSIONS ->

SEE ALL ->

SUBMIT A CASE →



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PRICING SIGN IN



SUPPORT

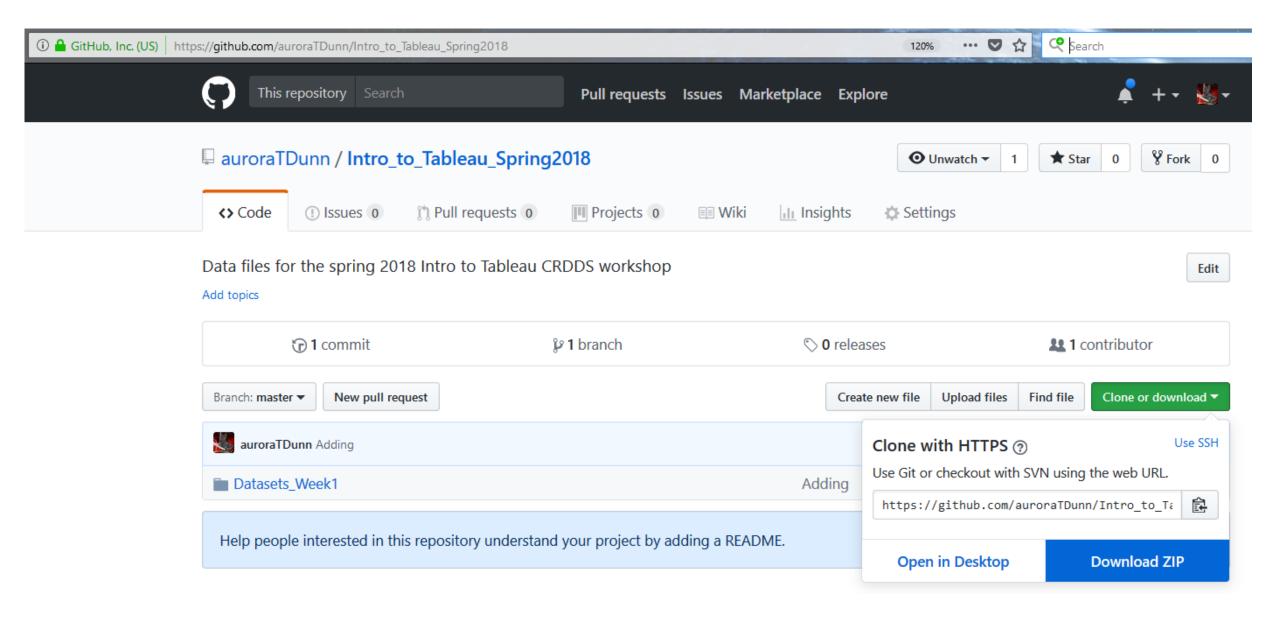
#### Driver Download

Find the driver for your database so that you can connect Tableau to your data.

To get the right driver, you might need to know your Tableau product version. In Tableau Desktop, select **Help > About Tableau**. In Tableau Server, click the information icon and select **About Tableau Server**.

Data Source	Operating System	Bit Version
All	Windows	64-bit
Actian Matrix (ParAccel)		
Actian Vector		
Amazon Athena		
Amazon Aurora		
Amazon EMR		

#### https://github.com/auroraTDunn/Intro\_to\_Tableau\_Spring2018



# Enough Talk Time to Play

*Dimensions* contain qualitative values (such as names, dates, or geographical data). You can use dimensions to categorize, segment, and reveal the details in your data. Dimensions affect the level of detail in the view.

*Measures* contain numeric, quantitative values that you can measure. You can apply calculations to them and aggregate them. When you drag a measure into the view, Tableau applies an aggregation to that measure (by default).

Blue field => discrete data
Green field => continuous data

- Open Households.xlsx and clean it
- 'Add' the Dogs.xlsx data, clean and join it
- •'Add' the Cats.xlsx data, clean and join it

• Are you sure you have both joined correctly?

- Create a new Worksheet and create a 'Text Table' visualization of 'Number of Pet Households' per 'Location'
- Create a 'Top' filter to find the 5 states with the highest 'Number of Pet Households'
- What are the bottom 5?

- Create a new 'Calculated Field' for 'Percentage of Pet Households'
- Create a filter for 'Percentage of Pet Households' < 50%
- Create a filter for 'Percentage of Pet Households' > 50%

- Create a new Worksheet
- Create a 'Text Table' showing the 'Dog Owning Households' and 'Cat Owning Households' per 'Location'
- Create a filter to find the states with more 'Dog Owning Households' then 'Cat Owning Households'
- Which states prefer cats over dogs?
- Create a 'Calculated Field' to show the 'Difference' between Dog and Cat owning households and add it to your Text Table

 Create a new Worksheet and create a 'side-by-side bars' plot of 'Dog Owning Households' and 'Cat Owning Households' per 'Location'

 Create a new Worksheet and create a 'treemaps' plot of 'Dog Owning Households' and 'Cat Owning Households' per 'Location'

 Create a new Worksheet and create a 'packed bubbles plot of 'Dog Owning Households' and 'Cat Owning Households' per 'Location'

 Create a new Worksheet and create a 'Scatter plots' plot of 'Dog Owning Households' and 'Cat Owning Households' per 'Location'

- Create a new worksheet
- Right click on 'Location' under Dimensions and set 'Geographic Role' to be 'State/Province'
- Drag 'Location' into the middle of the plotting region. A map of the US should pop up with a dot in the center of each state
- Drag 'Dog Owning Households' onto 'Color' and repeat this onto 'Label'
- Change the title to 'Dog Owning Households'

• Save your Book to you 'Tableau Public' web storage page.