Homework 1

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### Introduction

My name is GONG Kuiyuan. I come from China and I probably come from a very different department from other students, which is the Department of Agricultural and Resource Economics. The reason why I choose to take this course is to confront the kind of "fear" of coding and programming in my mind because I have been using Stata ever since I entered university. Yes, I am the spoiled kid who uses Stata a lot! During the winter break, I tried to learn LaTex myself and found that coding wasn't that scary, which is the tipping point that makes me here. Therefore, I really hope that I can learn and master a lot from this course.

Here is a photo of me:



Please check out the location of my hometown and my Linkedin page (even though there is nothing here).

#### My hometown

My hometown is located in the South China. This city is small compared with other cities in China. The fun fact is that my hometown was named by a very famous politician who was born there and named "Sun Yat-sen", my hometown wouldn't have become a city but a county if it weren't for him.

#### What I want to learn

- The correct way of data cleaning and processing. I have been using Excel and Stata to process my data, but those steps were barely recorded. I want to make everything more transparent.
- I heard that R is also quite similar with Python and I am learning these two languages at the same time. I hope this course can help to foster a sort of mentality of coding that I can apply to other computer language.
- Using terminals to manipulate R and Python seems to be very cool for me. Therefore, I truly expect to also learn something about the use of terminals like VS code.

#### Homework tasks

- 1. Include a photo of yourself (instead of chiitan). Finished!
- 2. Write an introduction of yourself and explain why you are interested in the course. Finished!
- 3. Write a small description of where you are from and include a link to your hometown either on Wikipedia or Google maps (or both!). **Finished!**
- 4. Uses to make a list of 3 things you hope to learn in this course. Finished!
- 5. Write a bit of R code: define a variable, print it, etc. Anything. Just get some practice including R code in your homework. **Finished!**

To compile your quarto document, you need to install package quarto and then you compile your .qmd file using the quarto\_render() function. Be sure to follow the specified file naming convention.

# More practice

An example quarto document. This is my thesis. My research question is blah, blah, blah. There is a relationship between mpg and disp.

```
lm(mpg ~ disp,dplyr::filter(mtcars,mpg!=8))
```

Use a blank link between paragraphs. You can use a bit of **bold** or *italics*.

Use backticks to indicate code that will be rendered in monospace.

Here's a list:

- an item in the list
- another item
- yet another item

You can add latex to write equations.

$$y_i = \alpha_0 + \beta_0 X_i + \beta_1 Contol_i + \epsilon_i$$

You can include blocks of code using three backticks:

```
n <- 200
x <- 1000
x*n
```

[1] 2e+05

```
y <- x*n length(y)
```

[1] 1

```
s <- c(n, x, y)
length(s)
```

[1] 3

```
s <- s/2
print(s)</pre>
```

#### [1] 1e+02 5e+02 1e+05

You can also include inline code say the mean of x, 1000, or the length -> of x, 1. If you add an r to the beginning of the backticks it will actually run the code, otherwise it just puts it in code case.

 $1000\ 1\ 2 \times 10^{8}$ 

It'll figure out numbered lists, too:

- 1. First item
- 2. Second item

And it's easy to create links, like to a list of CRAN Packages.

## This will be the end of Homework 1.