

# Want to learn R?



Tuğba Öztürk



# Hello!

## I am Tuğba.

I am a statistical biophysicist, a workshop facilitator at GradProSkills, a member of RLadiesMTL.

You can find me at  @tugbaoztrk and  @tugbateaches.

**What? Why? How?**

# What is R?

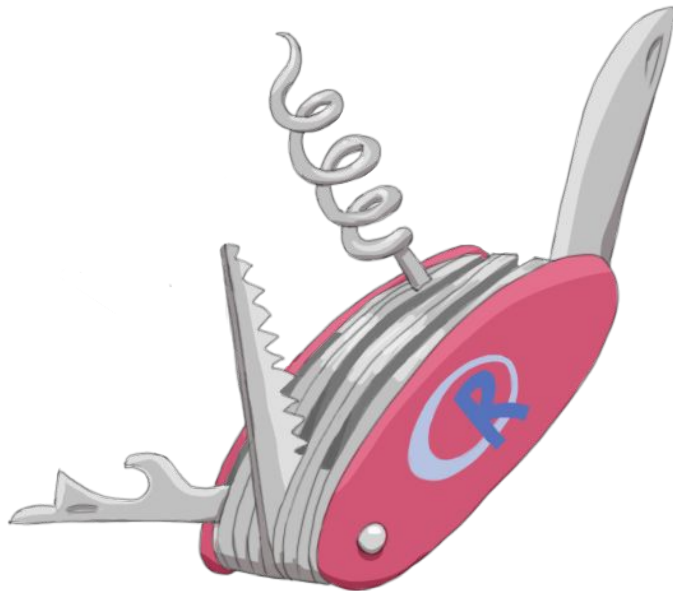


# What is R?



- **Several R packages** (shared code + documentation written for a specific task)
- **A dynamic community**

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What? **Why?** How?

# Why learn R?

*for data analysis*

year	month	day	dep_time	arr_time	origin	dest	air_time
2013	1	1	517	830	EWR	IAH	227
2013	1	1	533	850	LGA	IAH	227
2013	1	1	542	923	JFK	MIA	160
2013	1	1	544	1004	JFK	BQN	183



# Why learn R?

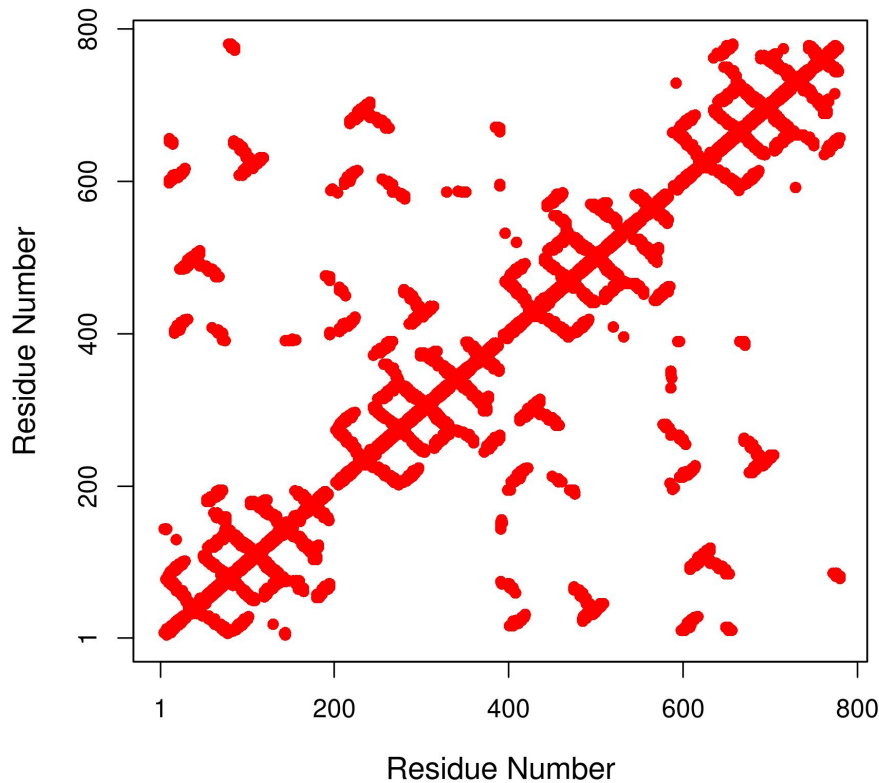
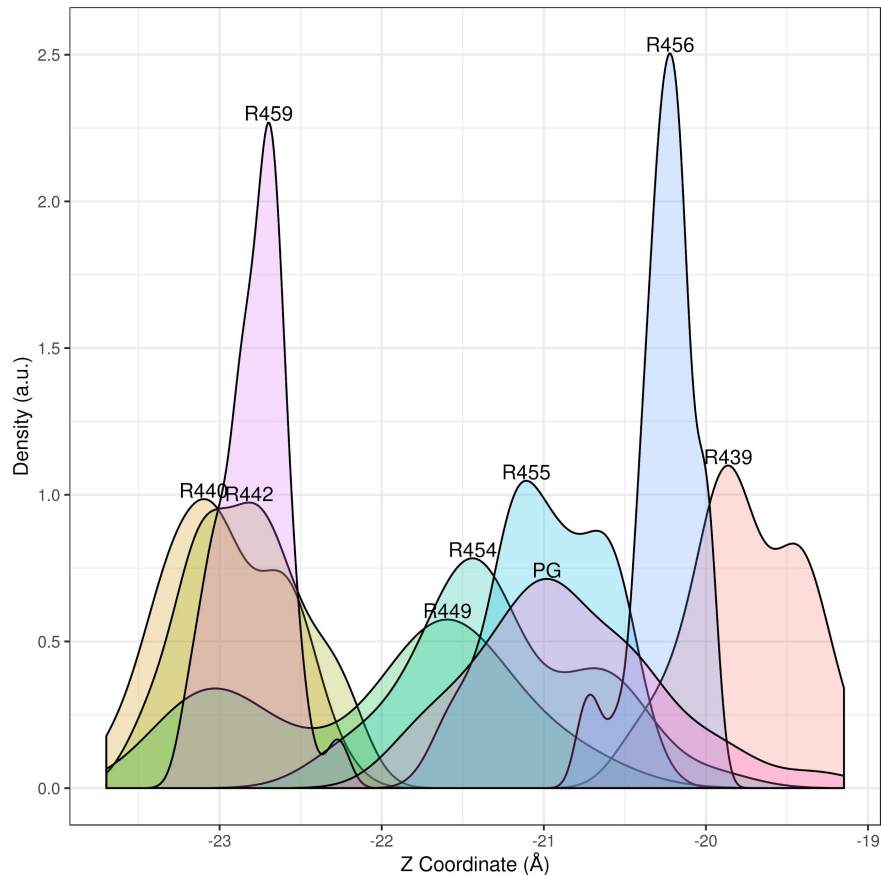
*for data analysis*

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```
my_data %>% filter( origin == "JFK", dest == "FLL", month > 10 ) %>%  
  group_by(year) %>% summarize( average=mean(air_time) )
```

# Why learn R?

*for data visualization*

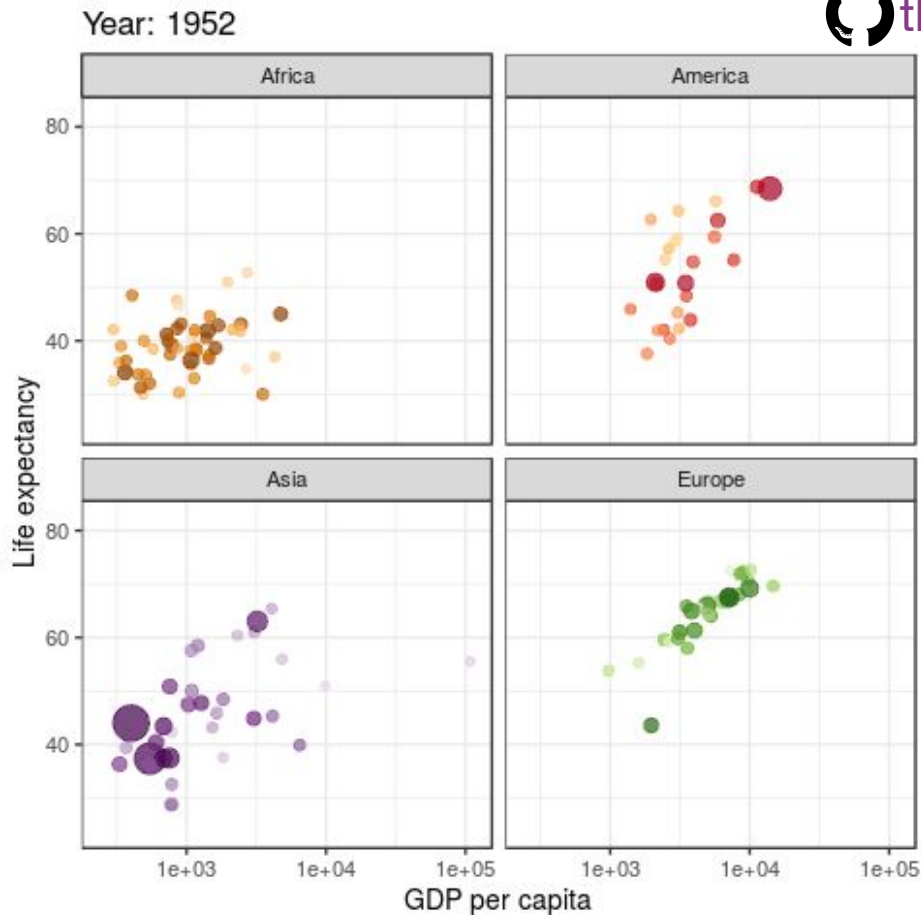


# Why learn R?

*for data visualization*



thomasp85/gganimate



# Why learn R?

*for web applications/dashboards*

<https://shiny.rstudio.com/gallery/lego-set.html>



Shiny from R Studio

[Back to Gallery](#)

LEGO Set Visualizer

[Explore the Data](#)

[LookUp on Brickset Website](#)

[About](#)

Timeline:



Number of Pieces:



LEGO Themes:

- ☒ 4 Juniors
- ☒ Adventurers
- ☒ Agents
- ☒ Alpha Team
- ☒ Aquazone
- ☒ Architecture
- ☒ Atlantis
- ☒ Avatar
- ☒ Belleville
- ☒ Ben 10
- ☒ Bionicle
- ☒ Boat
- ☒ Books
- ☒ Building Set with People
- ☒ Bulk Bricks
- ☒ Cars
- ☒ Castle
- ☒ Classic
- ☒ Clikits
- ☒ Collectible Minifigures
- ☒ Creator
- ☒ Designer Sets

☐ Dataset

[Visualize the Data](#)

Show  entries

Search:

	setld	year	pieces	theme	name
1	10001-1	2001	785	Train	Metroliner
2	10002-1	2001	272	Train	Railroad Club Car
3	10018-1	2001	1868	Star Wars	Darth Maul
4	10019-1	2001	1747	Star Wars	Rebel Blockade Runner - UCS
5	10020-1	2002	427	Train	Santa Fe Super Chief, NOT the Limited Edition
6	10020-2	2002	433	Train	Santa Fe Super Chief, Limited Edition
7	10021-1	2003	974	Hobby Sets	U.S.S. Constellation
8	10022-1	2002	410	Train	Santa Fe Cars - Set II (dining, observation, or sleeping car)
9	10024-1	2002	669	Sculptures	Red Baron
10	10025-1	2002	325	Train	Santa Fe Cars - Set I (mail or baggage car)
11	10027-1	2003	670	Train	Train Engine Shed
12	10029-1	2003	468	Discovery	Lunar Lander
13	10039-1	2002	431	Castle	Black Falcon's Fortress
14	10040-1	2002	914	Pirates	Black Seas Barracuda
15	10041-1	2003	639	Town	Main Street, Reissue
16	10123-1	2003	707	Star Wars	Cloud City
17	10124-1	2003	670	Sculptures	Wright Flyer
18	10128-1	2003	326	Train	Train Level Crossing

# Why learn R?

*for making personal websites*

<https://tugbateaches.github.io>



Hello,

I'm a PhD candidate in Physics at Concordia University. I work on molecular modelling of membrane proteins – yes, I am one of those physicists who are supposed to show you a movie of a protein jiggling in the middle of their talk. I love computational biochemistry/biophysics, coding (especially with R and Python!), teaching & learning and talking about any of these topics!

I graduated from the [Koc University](#) with a MS in Computational Sciences and Engineering in 2014. Same year, I started my PhD in Physics at [Concordia University](#), where I am working on molecular modelling of ion channels and transporters under the supervision of [Dr. Guillaume Lamoureux](#) at Rutgers University–Camden. I expect to graduate this year.

My full CV is available [here](#).

A quick note about my website: I have built this website using the amazing tutorial by [Emily C. Zabor](#) ♥. I like generating documents (tutorials, presentations, websites) with R. I also like the fact that there is an R package called tinytex – I think it's cute.

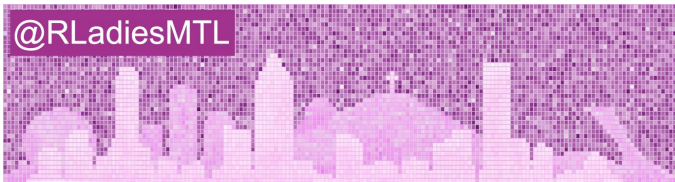
# Why learn R?

*for impressionist artwork*



What? Why? **How?**

# How to learn R?



## 1. Local resources:

- GradProSkills workshops (GPDI 515 and GPDI 517)
- [RLadiesMTL](#) meetups!



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## 1. Local resources:

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- RLadiesMTL meetups!

## 2. Online resources:

- Online courses (Coursera, EdX, DataCamp, Udemy)
- Tutorials (Youtube, RStudio, GitHub)
- Twitter (@hadleywickham, @jennybryan, @juliasilge, @dataandme, @RLadiesMTL)
- Blogs (r-tutor.com, r-bloggers.com)

# R for Psychology

- Learning Statistics with R
- Course notes for Psychology Statistics
- R-bloggers' suggestions for researchers in psychology (including lecture notes, mailing lists, online books and workshops)
- Popular websites:
  - <https://rpsychologist.com>
  - <https://personality-project.org/r>

*Any questions?*

You can find my slides  @tugbateaches/whyR

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<http://neuroplausible.com/programming>