

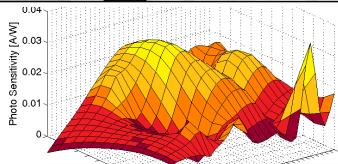
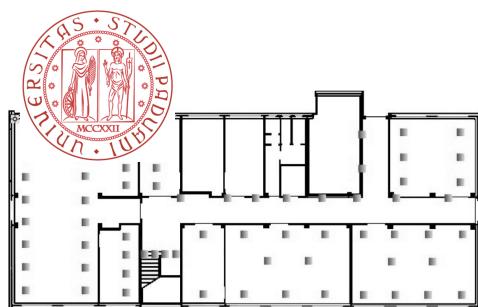
DSC 96

Workshop in Data Science

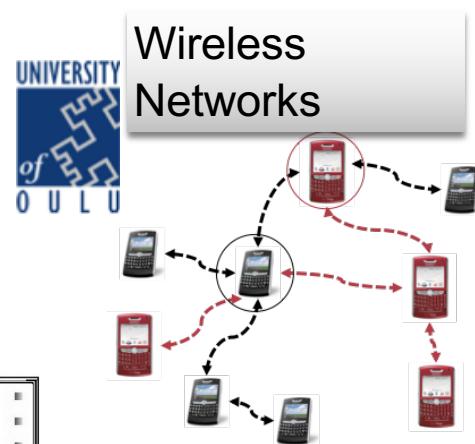
- Dr. Giorgio Quer
- Contact:
 - gquer@ucsd.edu
 -  @GiorgioQuer
- Office Hours:
 - Tue: 6-7pm
- Data Science:
 - capture
 - maintain
 - process
 - analyze
 - communicate
- Zoom:
 - View option: Side-by-side



From WSN to health

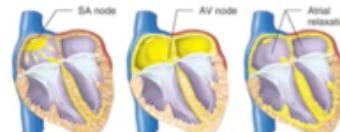


Remote
Sensing



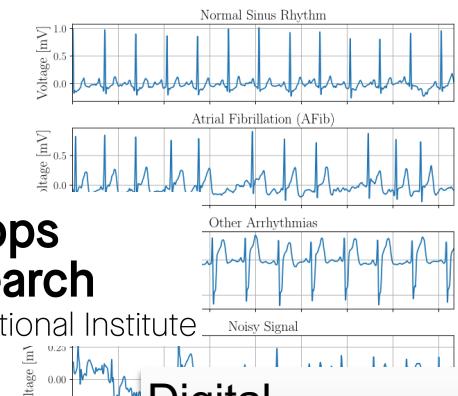
Wireless
Networks

Wearable and
e-Health



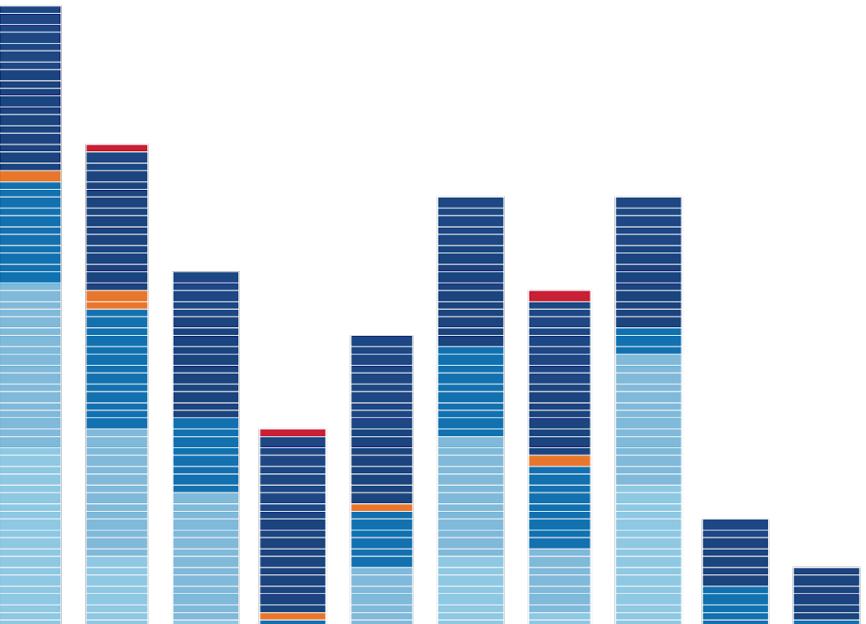
 Scripps
Research

Translational Institute



Digital
Medicine



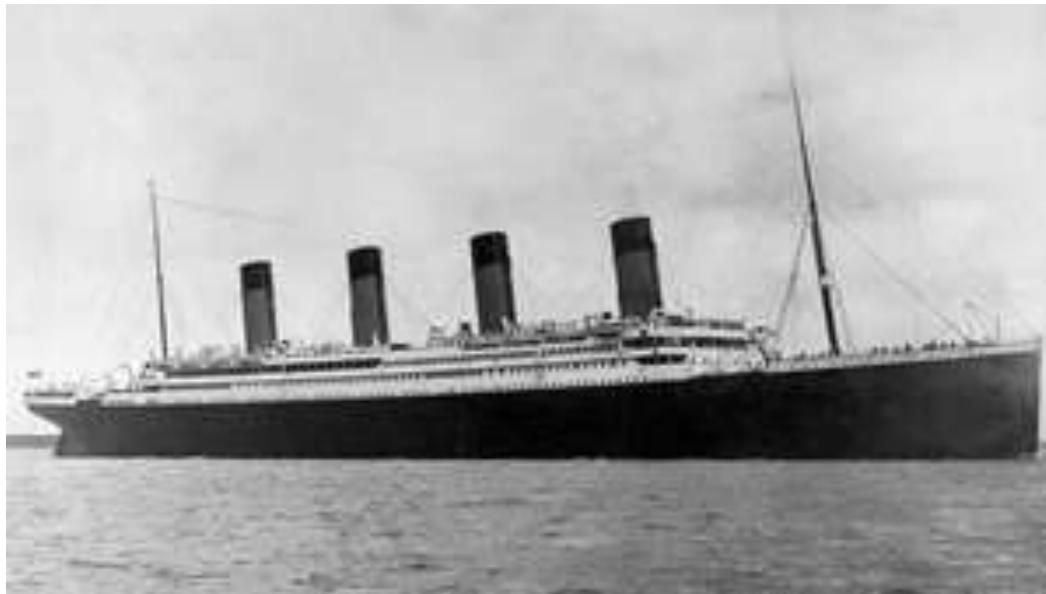


• Tableau basics

- Intro to interface
- Importing
- Dimensions and Measures
- Chart types
- Finding the story
- Practice on your own

Titanic Data

- How many people were on the ship?
- What was the total of all fares paid?



Tableau

- Open Tableau
 - Create Workbook
 - Import Data:
 - get it from DataHub (link from Canvas, find titanic.csv, click Alt + 'raw')
 - Or you should see it directly in the online version
- Dimensions and Measures
- Chart Types
- Aggregations
- Filters
- Calculated Values

Aggregation Link: https://onlinehelp.tableau.com/current/pro/desktop/en-us/calculations_calculatedfields_aggregate_create.htm

Titanic data

- Pclass:
 - It represent the class for each passenger (first, second, third)
 - 1,2,3
- Tableau
 - It guesses it is a number (like the amount paid): it is in **Measures**
 - It makes sense for Tableau to sum them up or to average them
 - What is the meaning of: average class is 1.85 ?
- Solution
 - Drag pclass it to **Dimensions** !
 - Change the data type to **string**
- What about age?
 - Age in bins (drag to Dimensions, Create, Bins)
 - Fix reasonable intervals (10 years?)

- Titanic dataset and cool things you can do with it: <https://www.kaggle.com/c/titanic>
- Tableau official training: <https://www.tableau.com/learn>
- Tableau examples with Titanic data: <https://public.tableau.com/search/all/titanic>
- Tableau video tutorial: <https://www.youtube.com/watch?v=TPMIZxRRaBQ>

Titanic questions

- Can you attribute survival to a single primary trait?
- In other words, can you attempt to tease apart the confounding effects of pclass/age/sex, when assessing one?
- Can you explain why the distribution of fares by pclass seems off? why are some 3rd class tickets more expensive than first class?
- Does group size have an effect on survival rate?

By next time

- Prepare a question/comment on the reading, to be discussed in class
- Introduce yourself in Slack #introductions:
 - Name and Major
 - Why you are interested in data science
 - What do you want to learn in DSC96
 - Optional: 1 fun fact about yourself