

SPORTS

Tartans

May 30, 2019

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1 May 14, 2019

1.1 Sports Camp

1.1.1 LOGISTICS

- 16 students
- Some CMU students, very diverse group
- June 3 - July 26
- 9:30-11am lectures
- Speaker/meeting lunches
- 12-1:30 R tutorials

1.1.2 PLANNING

- Regression, classification, clustering, graph techniques,
- dplyr and ggplot
- Guest lectures every week

1.1.3 ROLES

- Rebecca is the facilitator
- CPM is the lecturer for the mornings
- TAs learn to code, working through problems
- Projects are hockey, football, baseball, and perhaps a tennis
- The final result is a poster or presentation
- Intro to R lessons
- Fewer lessons as camp progresses

1.1.4 TOPICS

1.1.5 Vis

- hex charts, scatter plots, faceting, ggplot, dplyr, time series,
- 350 crash course
- first two weeks - vis, data exploration
- next two weeks - regression -> clustering -> data mining
- short, weekly presentations from the students

1.1.6 TODO

- Find and collect intro to R materials
- Set up a google drive
- Get materials for May 22

2 May 22, 2019

2.1 Tentative schedule

- 1030am-1200pm morning lecture
- 200pm-330pm "lab"/ practice
- Baker Patio lunch on June 3?
- Advertisement for projects in week 2
- Start having guest speakers?

2.2 Materials

- We are building a website to host our publicly available data
- summer.stat.cmu.edu/cmsacamp
- Get Ben's R lectures
- Do more data vis
- have a github

2.3 Students

- Try to split the skill sets among the groups
- Having office hours for my group

2.4 TODO

- Rebecca and Peter will work on website with CPM
- Peter will send out 350 lectures
- Ron will get data sets by end of week
- Alden and Shannon meeting on Friday to develop lab materials
- Get the github set up
- Meet next Wednesday

3 May 24, 2019

3.1 Intro to R

3.2 Graphics

3.3 Modeling

3.4 Shannon

- Takes two lectures on graphics for Wednesday

4 May 29, 2019

- Planning out first week and a half
- Talk about projects the second Monday

4.1 Schedule

4.1.1 Week 1

1. M

(a) Lecture

- Introductions
- Icebreakers

- Court sports
- (b) Lab
 - Install R
- 2. T
 - (a) Lecture
 - 1d
 - (b) Lab
 - vis lab 1
- 3. W
 - (a) Lecture
 - 1d day 2
 - (b) Lab
 - Dplyr lab
- 4. TH
 - (a) Lecture
 - 2d day 1
 - (b) Lab
 - vis lab 2
- 5. F
 - (a) Lecture
 - 2d day 2
 - (b) Lab
 - vis lab 3

4.1.2 Week 2

- 1. M
 - (a) Lecture
 - Intro project presentations
 - (b) Lab
 - Case study 1 (step through sports articles)
- 2. T
 - (a) Lecture
 - faceting/grouping
 - (b) Lab
 - vis lab 4
- 3. W
 - (a) Lecture
 - Simple Linear regression

- Multiple linear regression
 - Interpretations
 - Significance
 - Diagnostics
- (b) Lab
- Regression lab 1 (Alden's)
4. TH
- (a) Lecture
- Regression lecture 2
- (b) Lab
- Regression lab 2
5. F
- (a) Lecture
- Regression 3
- (b) Lab
- Catch up day?

4.2 Sports data vis

- Heat maps
- hexagons
- time series plots
- get 2d location data