

Machine Learning Seminar 1.

R intro.

February 13, 2020

1 Obtain tools

1. Use CRAN, download and run the latest installation package
2. Windows users: elect “SDI” mode; macOS users: try Terminal.app
3. Text editor: download and install Geany
4. “Visual Statistics. Use R!” book. Guides in Japanese on CRAN here: <https://cran.r-project.org/doc/contrib/manuals-jp/>

2 Load data

1. `q(save="no")`, quotes, brackets, spaces, letter case, argument `name=value`, why to answer “No”
2. `help(q)`, `example(boxplot)`, `help.search("histogram", lib.loc=.Library)`. To get help internally (*not* in browser), type: `options(help_type="text")`
3. Arrow Up and Tab keys
4. Working directory and `getwd()`
5. Load external data: locate, look, `read.table()` and `str()`
6. Data from spreadsheets: clipboard and tab-delimited files (macOS specifics), example is http://ashipunov.info/shipunov/school/biol_240/data/eq.xls

3 Process data

1. Dimension reduction via principal component analysis (PCA)
2. Plotting the two first principal components

4 Future

1. Date and time of the next seminar.
2. Communication: shipunov.alexey.7w@kyoto-u.ac.jp