

R for Bioinformatics

Introduction, Programming, Data Analysis and Visualization

Course Description

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- This course introduces the R programming language for students with no previous computer programming experience.
- This course is designed to the students who want to analysis and visualized omics-data generated by high-throughput biological experiments.
- Students learn how to use R to analysis and visualize biological data. They also learn the techniques of R package development, cloud computing in R and so on.

Online Resources

Course Website

<https://github.com/gangchen/CUHK-R>

How to use it?

- Read it online
- Clone this git repository to local using git
 - git clone
 - modify it
 - git commit
 - git push
 - Pull Request

Homework

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- A analysis report of a RNA-Seq dataset.
- The dataset and requirements will be provided on the course website.
- Final report and R scripts are required to get the score.

Course Schedule

- 2 Nov 2013 Introduction to Data Analysis and R
- 9 Nov 2013 R Programming
- 16 Nov 2013 Basic data analysis and plotting using R
- 23 Nov 2013 Biological Data Analysis and Visualization in R
- 30 Nov 2013 Advanced R: Package Development, Cloud Computing and Big Data