# Extra Reading material

#### Official Website:

1. Julia Official website: Link

This is the official website of Julia. All material related to Julia such as installation files could be found on this site.

2. Anaconda Official website: Link

This is the official website of Anaconda. To install the Jupyter Notebook, you must install Anaconda on your computer.

3. Jupyter Notebook Official website: Link

This is the official website of Jupyter Notebook. Documentations related to Jupyter Notebook are available on this site.

4. Scikit-learn Official website(Python): Link

Scikit learn is a Python packet on Data science. For your reference, this is the official site of the original Scikit-learn.

5. Scikit-learn.jl Official website: Link

This is the official site of Scikit-learn.jl, which is the Julia implementation of Scikit-learn.

6. Plots.jl Official website: Link

This is the official site of Plots.jl, which is the documentation of a data visualization tools on Julia

# Self-Learning Material:

## **General Computation Concept**

1. Binary Overflow [English] (Video): Link

This video introduced the concept of overflow error with concrete examples.

2. Six-Step Problem-Solving Process [English]: Link

This article introduced the 6 step problem-solving process with details definition and explanation

3. Logical Vs. Arithmetic Shift [English]: Link

This is the tutorial from Open4tech and explained the difference between Logical Shift and Arithmetic Shift with examples.

4. What is an Algorithm? [English] (Video): Link

This video is about the general concept in algorithms. Algorithms not just appear on the computer but also our daily life.

5. Understanding ASCII and Unicode (GCSE) [English] (Video): Link

A short tutorial which explains what ASCII and Unicode are, how they work, and what the difference is between them.

- 6. DSE ICT Notes Binary, 2's complement and Encoding [Chinese] <u>Link</u> The subject notes on Binary, 2's complement and Encoding for DSE ICT by Mr. Wong Ting Keung, Simon(who is a ICT teacher)
  - 7. DSE ICT problem solving process [Chinese] (Video): Link(Part 1), Link(Part 2), Link(Part 3)

A tutorial on 6 step problem-solving process with details definition and explanation in Cantonese.

### Programming Concept & Julia Programming

1. TutorialKart - Tutorial on Julia [English]: Link

Tutorial provided by TutorialKart. We covered most of the content of this tutorial and it is for your reference

- 2. JuliaAcademy [English]: Link
  Self-Learning video prepared by core Julia developers
- 3. A Comprehensive Tutorial to Learn Data Science with Julia from Scratch [English]: <u>Link</u> A Tutorial focusing on learning data science with Julia. There are more libraries in Julia for data science introduced in this tutorial.
- 4. The Julia Express [English]: <u>Link</u>
  This tutorial introduced more about julia programming data handling with examples,
- 5. Julia Programming Tutorial on Youtube [English] (Video) <u>Link</u> Video tutorial by codebasics on Youtube. We covered most of the content of this playlist and it is for your reference
- 6. Intro to Julia for data science [English] (Video) <u>Link</u> Video tutorial on data processing, algorithms, and visualizations in Julia

#### Reference:

- 1. Online Calculator for Two's Binary conversation: Link
- 2. ASCII Table: Link
- 3. Bitwise operation Wikipedia Link
- 4. Julia wikibook: Link

### **Advanced Material:**

Topics in the following material may not be covered by this course:

- 1. Julia 1.3 Documentation [English]: Link
- Full documentation from official Julia website
  - 2. ThinkJulia [English]: Link

Tutorial prepared by Allen Downey and Ben Lauwens and covered more advanced topics with jupyter notebooks examples. It could be considered as a one-semester course.

3. Online course - CS50's Introduction to Computer Science by Harvard University [English]: <u>Link</u>

An introduction to the intellectual enterprises of computer science and the art of programming by Harvard University. Suggest for interesting in computer science

4. Online course - Julia Scientific Programming [English]: Link

An online course for scientific programming in Julia with the SIR model as example.