



香港中文大學(深圳)  
The Chinese University of Hong Kong, Shenzhen

数据科学学院  
School of Data Science

# GitHub, LaTeX, and Colab

**Tutorial 0: Prerequisites**  
**Xueyao Zhang**

**CSC3160 / MDS6002, 2023 Spring**

# 1. Git and GitHub

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- **Requirements**

- You need to use Git to manage your codes of the final project. All your source codes are **required** to be submitted in GitHub.

- **Learning materials**

- Official tutorials of Git: <https://git-scm.com/doc>
  - Official tutorials of GitHub: <https://docs.github.com/en/get-started/quickstart/hello-world>
  - Using Pull requests to collaborate: <https://docs.github.com/en/pull-requests/collaborating-with-pull-requests/proposing-changes-to-your-work-with-pull-requests>

- **Further reading**

- Using Git source control in VS Code: <https://code.visualstudio.com/docs/sourcecontrol/overview>

## 2. LaTeX and Overleaf

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- **Requirements**

- Your final project report is **required** to be written by LaTeX (a template will be provided).
- Other reports (such as assignments) are also encouraged to be written by LaTeX.
- We recommend to use Overleaf to write LaTeX online.

- **Learning materials**

- Overleaf - Learn LaTeX in 30 minutes: [https://www.overleaf.com/learn/latex/  
Learn LaTeX in 30 minutes](https://www.overleaf.com/learn/latex/Learn_LaTeX_in_30_minutes)

### 3. Colab

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- **Colab is recommended but not mandatory.**
- **If you have the following needs when coding, just try it:**
  - Need free GPU resources.
  - Need to visualize and share your code elegantly.
  - Need online interactive coding like Jupyter Notebook.
- **Learning materials**
  - Official tutorials: <https://colab.research.google.com/>
  - Tutorial by Yen Meng, NTU: <https://speech.ee.ntu.edu.tw/~hyLee/ml/ml2022-course-data/Colab%20Tutorial%202022.pdf>

In *Tutorial 1: PyTorch (Jan 11)*, I will provide you a colab notebook example to show **how to use GPU to train a PyTorch model**.

# THANKS



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Research interest: “**AI + Music**”, especially on:

- ◆ **Singing Voice Synthesis**
- ◆ **Algorithmic Composition**

***Hiring: Our team is broadly interested in speech and music-related research.***

***We have open positions for RA, PhD students, and visiting students.***