| Applied Machine Learning Senior Design | **Lab #B2: Deep Learning for Time Series Data with PyTorch** | |
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| This lab demonstrates how to perform deep learning with time series data. Specifically, we will demonstrate how to use the LSTM network to extract temporal patterns from raw ventilator data. | | By Zhengfeng Lai,  Gregory Rehm, Chen-Nee Chuah |

# **EEC 174AY Lab #B2 deploy instructions**

This lab will work in a team. The whole project can be downloaded from [Drive](https://drive.google.com/file/d/1vub40SW9QlNxI6efxP8Ptukvp6MJyhfN/view?usp=sharing). Here are some steps:

1). Configurate the environment that your team would like to use. We provide Dockerfile in the folder. Therefore, you are free to build Docker Image/Container for you team on your own, or you can also use other Platforms or your local machine. Environment configuration is one part of the whole assignment.

2). Finish dataset.py and lab\_b2.ipynb inside of the folder.

3). Submission: please submit dataset.py and lab\_b2.ipynb to canvas. Don’t forget to put your name and your partner’s name there.

4). Flexibility: this lab is flexible to train your engineering ability. In the ML projects, there can be many challenges and difficulties. It is a key skill that you could always find backup plans or alternatives to achieve the same goal. We provide one way of implementing LSTM and CNN in lab\_b2.ipynb. You are also welcome to use your own way to implement them on the provided dtasets, that would be better for training your engineering mindset.

5). Debugging is also one part of this project. Please work in a team and study together for that.