**IE 500 Course Project Phase 2**

Project is on individual basis. Please create your own deep learning models or use existing ones to tackle your problem. Note that deep learning methods are preferred. But regularized linear models also work for this phase.

Phase II requires you to work on the following items:

* An overview of the methodology, i.e., what are the steps you followed to complete the modeling?
* Assumptions of your model (e.g., i.i.d. assumption of linear regression).
* Notations and their dimensionalities.
* Model formulation and its estimator.
* Algorithm to solve the optimization of the estimator.
* A detailed description of case study dataset, including input, output, correlation analysis (if applicable), etc.
* Training-validation-testing partition.
* A figure/table to summarize the modeling performance and its limitations.
* Validation of your assumptions based on numerical results with nicely organized figures.
* In-depth discussion of the modeling outcome, justify the results, discuss the significance, contributions, and limitations with evidence from the numerical results.
* Summarize your main findings and future directions in conclusions and future work section.
* **Note**: Please add the aforementioned sections to your Phase I report and submit the following:
  + **Phase II report**
  + A **Jupyter noteboo**k that can reproduce the main results of this report.

Look forward to your papers!

Dr. Chen