6.86x Machine Learning with Python – From Linear Models to Deep Learning

Unit 0. Course Overview, Homework 0 and Project 0		
Week 1	Homework 0: Linear algebra and Probability Review	Due on Wednesday: **June 19 UTC23:59**
	Project 0: Setup, Numpy Exercises, Tutorial on Common Packages	Due on Tuesday: **June 25, UTC23:59**
Unit 1. Linear Classifiers		
Week 2	Lecture 1: Introduction to Machine Learning Lecture 2: Linear Classifier and Perceptron Lecture 3: Hinge loss, Margin boundaries and Regularization Homework 1	Due on Tuesday: **June 25, UTC23:59**
Week 3	Lecture 4: Linear Classification and Generalization Homework 2 Project 1 :Automatic Review Analyzer	Due on Monday: **July 1 UTC23:59**
Unit 2 Nonlinear Classification, Linear Regression, Collaborative Filtering		
Week 4,5	Lecture 5: Nonlinear Classification Lecture 6: Linear Regression Lecture 7: Collaborative Filtering Homework 3	Due on Friday: **July 12 UTC23:59**
	Project 2: Digit Recognition Part 1	Due on Monday: **July 15 UTC23:59**
Unit 3 Neural Networks		
Week 6-8.5	Lecture 7: Neural Networks 1 Lecture 8: Neural Networks 2 Lecture 9: Recurrent Neural Networks 1 Lecture 10: Recurrent Neural Networks 2 Homework 4	Due on Friday: **July 26 UTC23:59**

	Lecture 11: Convolutional Neural Networks Project 3: Digit Recognition Part 2	Due on Wednesday: **July 31 UTC23:59**
Midterm Exam 1		
Week 8 (second half)	Midterm Exam 1	Due on Monday: **August 05 UTC23:59**
Unit 4 Unsupervised Learning		
Week 9, 10	Lecture 13: Clustering 1 Lecture 14: Clustering 2 Lecture 15: Generative Model Lecture 16: Mixture Models; EM algorithm Homework 5	Due on Friday: **August 16 UTC23:59**
	Project 4: Collaborative Filtering	Due on Monday: **August 19 UTC23:59**
Unit 5 Reinforcement Learning		
Week 11, 12	Lecture 17: Reinforcement Learning 1 Lecture 18: Reinforcement Learning 2 Lecture 19: Introduction to Natural Language Processing Homework 6	Due on Friday: **August 30 UTC23:59**
	Project 5: Text Based Game	Due on Tuesday: **Sept 3 UTC23:59**
Final Exam		
Week 13	Final Exam	Due on Monday: **Sept 09 UTC23:59**