Course Syllabus
IAF 604- Machine Learning and Predictive Analytics

Course Syllabus, Spring 2020

COURSE INFORMATION

For Whom Planned: graduate students
Credits: 3
Prerequisite: Grade of C or better in IAF 601 and IAF 603 or permission of instructor.
Meeting Times: R 6:00pm - 8:50pm
Location: Bryan Building 206

INSTRUCTOR INFORMATION

Instructor: Dr. Lixin Fu
Office: Petty 162
Office hours: R 1:30pm - 3:00pm or by appointment
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COURSE DESCRIPTION AND LEARNING OUTCOMES

This course is an introduction to machine learning and predictive analytics for Big Data. Concepts covered in the course include deep learning, supervised and unsupervised models, regression, inductive learning and time series analysis.

Upon successful completion of the course, students should be able to:

1. understand the concepts, problems, and challenges of machine learning for big data
2. understand big data systems such as Hadoop, MapReduce, and suitable programming languages
3. understand machine learning techniques such as decision trees, random forests, and deep learning
4. understand scaling issues of predictive learning including dimension reduction
5. understand basic concepts and algorithms for unsupervised learning, regression, and time series

A tentative schedule can be found in "Files" Tab at left

Required textbook:

Machine Learning Models and Algorithms for Big Data Classification: Thinking with Examples for Effective Learning by Shan Suthaharan

https://link.springer.com/book/10.1007/978-1-4899-7641-3

EVALUATION METHODS AND GUIDELINES FOR ASSIGNMENTS

Grading Scheme

Exam I	20%
Exam II	20%
Assignment 1	10%
Assignment 2	10%
Project 1	20%
Project 2	20%

ATTENDANCE POLICY

Class attendance is required.

ACADEMIC HONOR CODE

Academic Honor Policy will be strictly enforced.
Please refer to Academic Integrity Policy for more details.

If you need any help for this course, feel free to contact me by office hour, by appointment or by email. I am more than happy to help you.