IDC 6940: Capstone in Data Science

Giri NARASIMHAN

www.cs.fiu.edu/~giri/teach/CapDS-S20.html
Course Preliminaries

- Course Webpage:
  http://www.cs.fiu.edu/~giri/teach/CapDS-S20.html
  - Lecture Slides; Reading Material; Announcements;
  - VISIT OFTEN!

- Class meets 6:25 – 7:40 PM, GL 137 third Thu every month
- First meeting will be on Thu, Jan 16
- Office ECS 254B; Office Hours: By Appointment Only
- Phone: x-3748; Email: giri@cis.fiu.edu
- No Final Exam for this class
- This is a variable credit course
Course Plan

- Execute an **industry-relevant or research-oriented** project in Data Science
- The project must synthesize concepts from databases, analytics, visualization and management of data.
- The class will meet once every month.
- Class meetings will be used for:
  - Monitoring progress in project and troubleshooting
  - Class presentations
  - Visiting speakers and case histories
Project Overview

- Individual or team effort.
  - Team Size? 1-2

- Projects need a faculty mentor to identify, plan, outline and execute
  - Mentor list? On the course webpage

- Projects are encouraged to have an external mentor
  - The external mentor may be a domain expert to provide guidance

- Projects need a 3-person evaluation committee, including your mentor(s) and at least one of Drs. Giri Narasimhan and Miguel Alonso
Project Steps

1. Select Faculty Mentor, Industry/Specialist Mentor, Project Team & Evaluation Committee
2. Select Dataset & Identify Broad Questions
3. Flesh out Details of the Project
4. Write a preliminary Proposal and make a Presentation
5. Meet regularly with mentors and Execute project
6. Discuss preliminary results and Refine project
7. Make final oral Presentation and submit final Project Report
Capstone Project Plan: Semester 1

- Pick a problem area and mentor         Jan 16
- Pick a problem, data set, and formulate questions   Feb 20
- Download the data; plan tools; identify resources     Mar 5
- Submit Initial Proposal for Capstone           Mar 5
- Design algorithms, analyze, visualize & Interpret     Mar & Apr
- Present preliminary proposal & results          Apr 16
- Email progress report to course director on first and third Thu every month
Capstone Project (2 Semester) Plan

SEMESTER 2
- Design algorithms, analyze, visualize & Interpret  All Jan
- Present progress report  Mar 19
- Iterate, Improve, Refine  All Mar/Apr
- Final presentations  Apr 16
- Final Report  Apr 17
- Email progress report to course director on first and third Thu every month
Course Evaluation (1\textsuperscript{st} Semester)

- Project Proposal: 35 \%
- Project Progress Reports: 15 \%
- Proposal Presentation: 50 \%

6/26/18
Course Evaluation (2\textsuperscript{nd} Semester)

- Project Proposal: 10%
- Proposal Presentation: 5%
- Final Project Report: 35%
- Final Project Presentation: 15%
- Project Updates & Execution: 35%