



IDC 6940: Capstone in Data Science

Giri NARASIMHAN

Course Preliminaries

- **First meeting: Class will meet Noon -- 1:30 PM Thu**
- **Class will meet 5:00 -- 6:30 PM Thu roughly every 2 weeks after that (Schedule on **slide 10**)**
- **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 as specified on Slide 10 tentatively from 5:00 – 6:30 PM
- 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 & execute
 - Course Description : <https://www.cis.fiu.edu/academics/degrees/graduate/master-of-science-in-data-science/> (Click on “Capstone”)
 - Rough rubric for the project is provided along with the course description.
 - Mentor list? <http://users.cis.fiu.edu/~giri/teach/Capstone/mentors.pdf>
 - Projects are encouraged to have an external mentor. External mentor may be a domain expert to provide guidance
- Projects need a 3-person evaluation committee, including your mentor(s) and Dr. Giri Narasimhan. The committee needs to be approved by Dr. Giri Narasimhan

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 (2 Semester) Plan

SEMESTER 1

- Pick a problem area and mentor **Jun 9**
- Pick a specific problem, data set, formulate questions **Jun 16**
 - Download the data; plan tools; identify resources
- Present preliminary plan and submit project proposal **Jun 30**
- Design algorithms, analyze, visualize & Interpret **Jun & Jul**
- Present preliminary proposal & results **Jul 28**

Capstone Project (2 Semester) Plan

SEMESTER 2

- Provide 5 minute overview of project with slides **Jun 2**
- Design algorithms, analyze, visualize & Interpret **all Jun**
- Present progress report **Jun 30**
- Iterate, Improve, Refine **Jul**
- Get evaluation committee approved **Jul 14**
- Schedule final presentation **Jul 14**
- Final presentations with Evaluation committee **Jul 25-29**
- Final Report, Material, and website **Jul 30**

Evaluation (1st of 2-Semester Plan)

- Project Proposal **25 %**
- Project Progress Reports **25 %**
- Proposal Presentations **50 %**

Evaluation (2nd of 2-Semester Plan)

- **Class Presentations** **5 %**
- **Final Project Report** **35 %**
- **Final Project Presentation** **25 %**
- **Project Updates & Execution** **35 %**

Class Meeting Dates over Zoom

- ➔ **Class 1 (Preliminary Meeting) June 2 (Noon – 1:30)**
- ➔ **Class 2 (Consultations) June 16**
- ➔ **Class 3 (Progress report) June 30**
- ➔ **Class 4 (Consultations) July 14**
- ➔ **Class 5 (Final Presentations) July 25-29**

(Class meetings from 5:00 – 6:30 PM Except Jun 2)