

DataFirst Handbook

Last Updated 28 July 2023

Background

The USC Center for Knowledge-Powered Interdisciplinary Data Science (CKIDS) provides opportunities to get involved in collaborative data science projects with other faculty and students across the university and with data science students in training.

In the past years, faculty members across several schools at USC have been collaborating through CKIDS to work on joint projects through DataFest events. In these events, faculty and senior researchers have been able to tackle new interdisciplinary topics, and engage students in data science, computer science and other disciplines to work together to formulate interesting problems and to define joint approaches to solve them.

Any USC faculty, post-docs, or senior researchers interested in exploring new collaborations in data science can propose projects to the center. A call for project proposals is issued every semester.

Faculty

The projects proposed should be semester-long projects where each student spends around 10 hours a week.

Students

Faculty will expect that students spend around 10 hours a week.

- Project Mentor(s) will meet with students once a week
- Project Advisor(s) will meet with students and project mentor once a month
- DataFirst Chair(s) will meet with students once in the semester

Timeline for the Semester

Timeline	Report Type	Length	Sections
Week 2	Data Assessment Document	2-3 pages	<ol style="list-style-type: none"> 1. Data overview and examples 2. Data accessibility (eg, files, databases) 3. Data formats 4. Data challenges (eg, heterogeneity, size, pre- or post- processing needs, etc)
Week 4 (maybe week 3??)	Requirements Document	Up to 5 pages	<ol style="list-style-type: none"> 1. Motivation 2. Problem for the semester 3. Data overview 4. State of the art tools (brief summary) 5. General approach (eg, key idea, inputs, system components) 6. Desired outcomes with examples 7. Benefits
Week 6	Mid-Project Presentation	7 slides	<ol style="list-style-type: none"> 1. Problem overview 2. Approach 3. Use case example 4. Benefits of outcomes 5. Results to date 6. Planned work 7. Team organization and member assignments
Week 10	Final Project Report	Up to 10 pages	<ol style="list-style-type: none"> 1. Final requirements document 2. Final data assessment document 3. Use case example 4. Results to date 5. Products (eg new software, new data, etc) 6. Future work
Week 11	Final Presentation	6 slides	<ol style="list-style-type: none"> 1. Problem overview 2. Approach 3. Use case example 4. Benefits of outcomes 5. Results 6. Future work