



CMSE495: Data Science Capstone

Dr. Dirk Colbry

Department of Computational Mathematics Science and Engineering

Link to Syllabus

<http://cmse.msu.edu/cmse495>

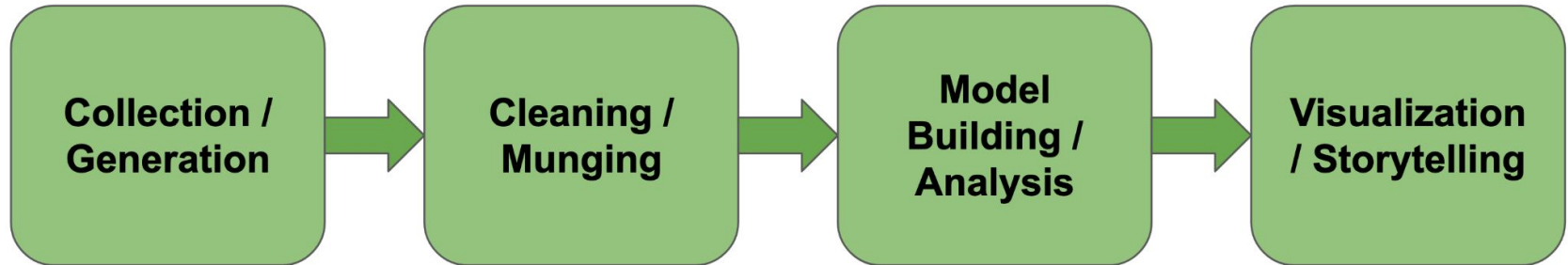
Things of Note:

- Project Sponsors
- NDA and IP agreements
- Professional Skills Training



Capstone Projects

- Groups of 4-5 Students
- Project Sponsor (Industry, Non-profit, Public Sector)
- Each project will consist of components in the following pipeline:



Project Sponsors

The Kellogg's logo is written in a red, cursive script font.

- Industry
- Public Sector
- Non-Profits



Argonne
NATIONAL
LABORATORY



QSIDE Institute

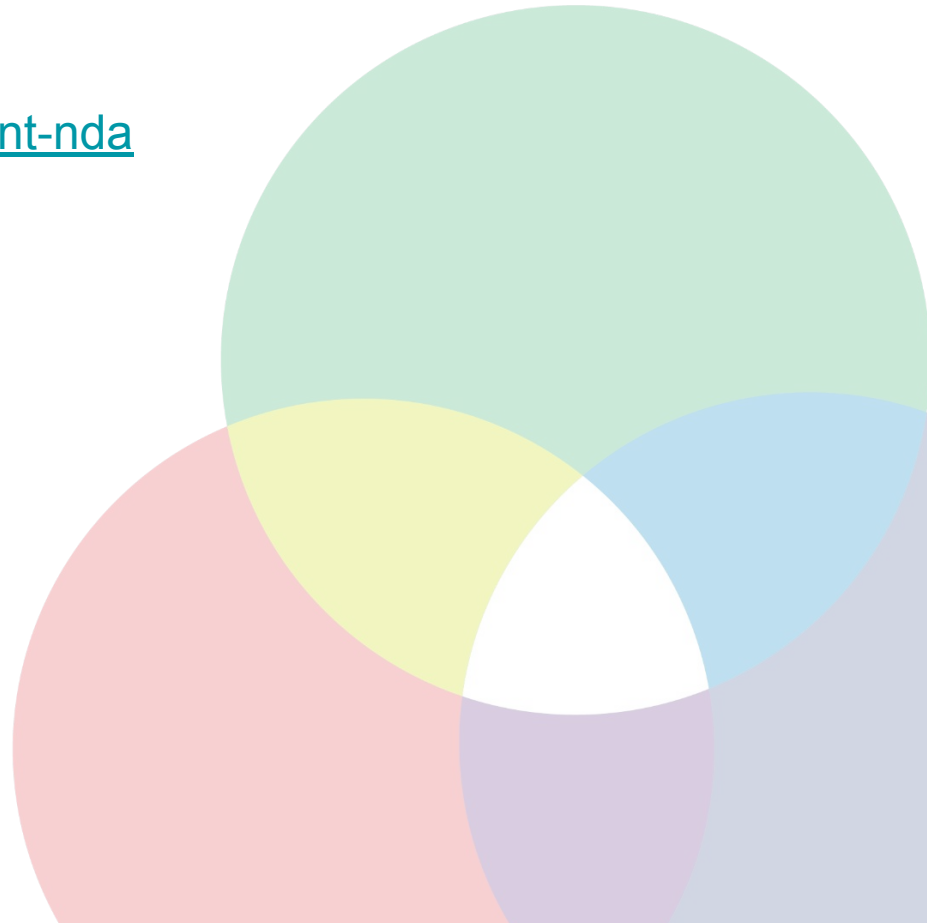


Approximate Weekly Cycle

- Monday - Review, Logistics and Planning
- Wednesdays - Professional Skills Training
- Fridays - Technical Practice and Project Work
- Sunday - Milestone Deadlines

NDA's and IP Agreements

<https://undergrad.msu.edu/programs/student-nda>

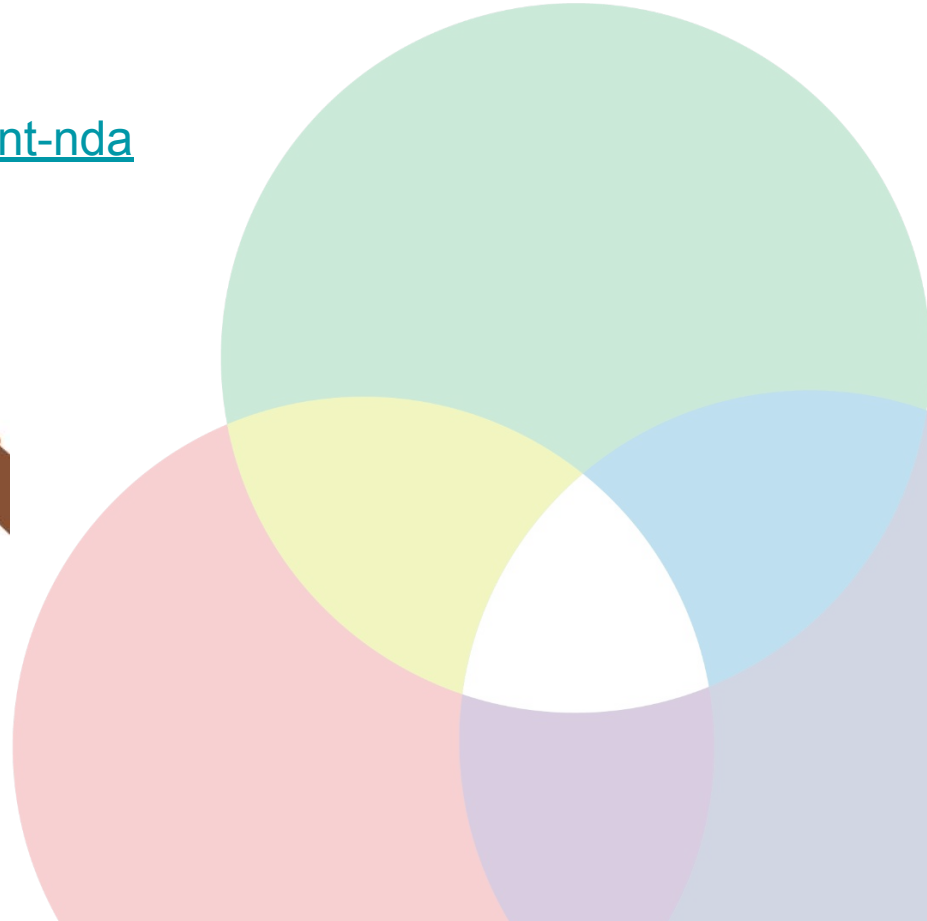


NDA's and IP Agreements

<https://undergrad.msu.edu/programs/student-nda>

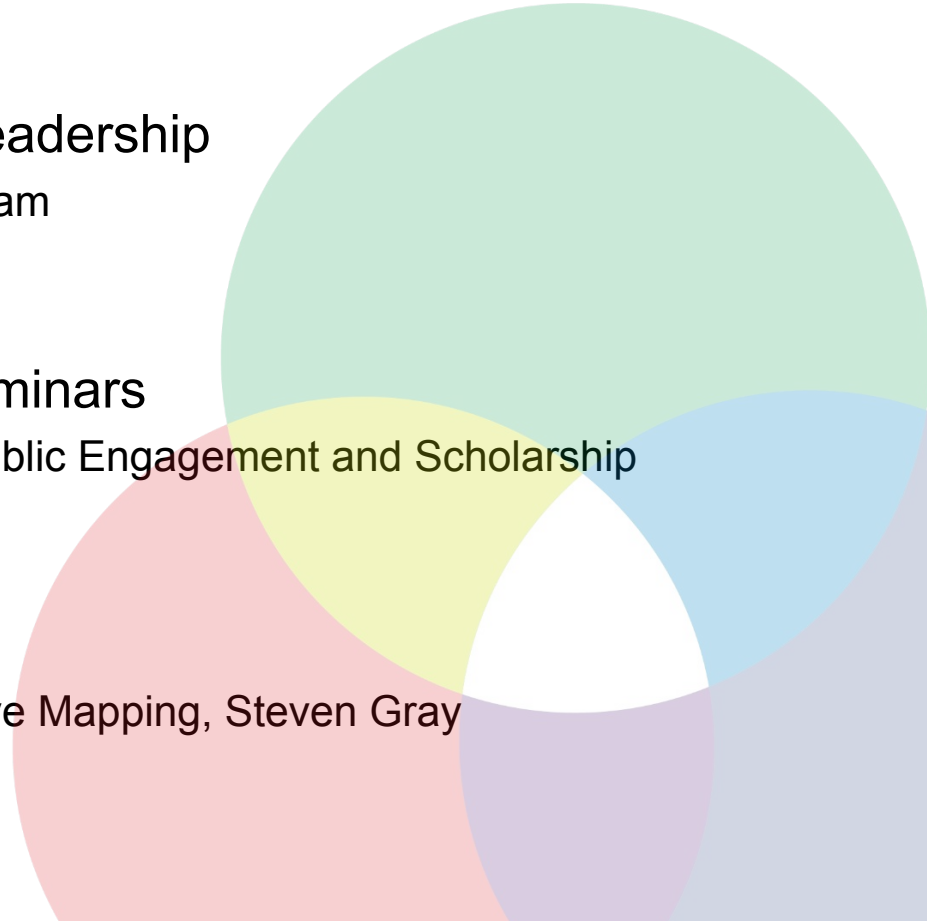


QSIDE Institute



Communication Training

- **Communication, Teamwork and Leadership**
 - NSF funded CyberAmbassador Program
- **Community Engaged Learning Seminars**
 - Stephanie Brewer - MSU Office for Public Engagement and Scholarship
- **Systems Thinking**
 - Nate Brugnone - Team Fuzzy Cognitive Mapping, Steven Gray



CyberAmbassador Project

- National Science Foundation Grant (#1730137)
- Professional Skills for Interdisciplinary Work
 - CyberInfrastructure (CI) Professionals
 - STEM (science, technology, engineering, math)
- Volunteer Facilitators
 - Training is provided
 - Interest question on evaluation



Professional Skills Training (Wednesdays)

COMMUNICATION

FIRST CONTACT: Communicating with a Purpose

LET'S TALK: Communicating about Problems

IT'S COMPLICATED: Communicating About Complexity

TEAMWORK

TEAMING UP: Effective Groups and Meetings

SPEAKING UP: Effective Presentation Skills

LEVELING UP: Problem Solving and Decision Making

LEADERSHIP

LEADING THE TEAM: Understanding Style and Personality

LEADING THE CHANGE: Equity and Inclusion

LEADING WITH PRINCIPLES: Ethics

Quick Plug – colbrydi@msu.edu

- Virtual CyberAmbassador Certification Workshops

	Communications	Teamwork	Leadership
Series 1: Tuesdays in May/June (all sessions 12:00-3:00pm EDT)	Tuesday, May 24	Tuesday, May 31	Tuesday, June 7
Series 2: Mondays in June (all sessions 1:00-4:00pm EDT)	Monday, June 6	Monday, June 13	Monday, June 20
Series 3: Tuesdays in July/Aug (all sessions 2:00-5:00pm EDT)	Tuesday, July 19	Tuesday, July 26	Tuesday, August 9 (skips a week)

- 2-day Train-the-Trainers in-person Facilitation Workshops
 - July 23-24, August 12-13, or August 18-19



Professional Skills

COMMUNITY ENGAGEMENT*

Community Engaged Learning Orientation
Situated Spartan

Asset-Based Community Engagement
The Elements of Community Partnerships

* Workshops Provided through Center for Community Engaged Learning by Stephanie Brewer.

Professional Skills

Systems Thinking*

Team Fuzzy Cognitive Mapping, Steven Gray

* Workshops Provided by Nate Brugnone

Project Showcase



Questions?

- Project Sponsors
- NDA and IP agreements
- Professional Skills Training

