Welcome to CS 205: “Data Driven Discovery”
Course Website: https://courses.engr.illinois.edu/cs199205/
...or just Google Search: cs205 uiuc

Description: This course will expand on the basic programming you have learned in an introductory programming course, specifically focusing on data discovery, analysis, and visualization.

Prerequisite: You are expected to know and understand basic programming constructs (functions, lists/arrays, and dictionaries/objects).

Pilot Course: CS 205 is a pilot course this semester, everything is subject to change. You will get to shape the experience and development of this course!

Required Materials:
- Laptop, brought to class every day
- Colored pencils with at least 24 colors (for visualization drafts)

Final Project Presentations (during Final Exam slot):
Tuesday, May 9, 7:00pm

Coursework and Grade
- Assignments, nearly every day (35 points /week = 490 points)
- Projects (510 points):
  - 2 “Meta” Projects (150 points each = 300 points)
  - Final Project (210 points)
- No final exam, no major exams; possibly a few quizzes?
- 930 points earns an A, 900 for an A-, etc.

Semester at a Glance:

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<thead>
<tr>
<th>Meta</th>
<th>Major Topics</th>
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<tr>
<td>#1: Structured Data</td>
<td>CSV/TSV Datasets</td>
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<td>Classifiers</td>
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<td>Web-based APIs</td>
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<td>#2: Images &amp; Natural Language</td>
<td>Color representation, histograms</td>
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<td>Clustering</td>
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<td>NLP (grammar trees, similarity)</td>
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<td>#3: Geographic &amp; Social</td>
<td>Heat Maps</td>
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<td>Graphs (Dijkstra’s, TSP)</td>
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<td>Social Network Trees</td>
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<td>#4: Integrated</td>
<td>Solving big problems in small pieces</td>
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Data Cleaning:

What are concerns we have with data?

1.
2.
3.

What are strategies we have to clean the data?

1.
2.
3.

Before our next class...

Set up technologies for CS 205 (git, Python, code editor), join the CS 205 Piazza, and complete Activity 0.

Full details on the course website!