

1. Introduction (Luke):

- a. We are the second of two teams dedicated to data collection and analysis regarding the professional capabilities of iSchool graduates and the jobs they are qualified for.
- b. The focus of our group was the skills learned by students in the iSchool, while the other group identified growing career fields and the skills those fields require.
- c. The goal of this project was to create final deliverables that combine the research conducted by both groups to demonstrate the career readiness of iSchool graduates to both businesses and students.

2. Client Background (Luke):

- a. The two primary motivators for the iConsultancy regarding this project are its role in student development and its rapid growth as a business.
- b. In terms of student development, the iConsultancy aims to prepare students for the workforce through the creation of professional capstone projects.
 - i. Because of this facet of the iConsultancy, they want iSchool students to be aware they are career ready, and therefore need resources that can show iSchool students the professional skills they have gained through their education.
 - ii. On the other side of that coin, they want businesses to see the value of an iSchool degree, so they need resources that show off the competencies of iSchool students.

- c. In terms of business growth, the iConsultancy needs to be able to create more capstone projects so the rapidly increasing number of students taking 490 all have a project.
 - i. As a result, the iConsultancy needs resources that can help them market student capabilities to businesses to attract potential clients.

3. Approach:

- a. We combined personal knowledge of the curriculum, course descriptions, and interviews with advisors and professionals to identify skills learned by students in the iSchool
- b. We used spreadsheets to map job skills to the majors and individual courses that teach them
- c. We then combined that data with what group 1 found about the job market to create additional tables
- d. Using that data, we created visuals and other tools to be used by students and businesses

4. Findings and Outcomes (Elizabeth + Allison):

- a. These visualizations highlight key differences in technical and hard skill coverage across the three iSchool undergraduate programs. Social Data Science stands out with a significantly higher number of technical skills, around 135, more than double the count in the other two programs. This is largely due to the program's multiple specialized tracks, which results in a wide range of courses falling under the Social Data Science umbrella. To avoid a misleading comparison, Social Data Science was removed from the second chart, allowing for a clearer view of the

other two programs. Social Data Science focuses heavily on data-centric skills such as Data Analysis, Programming (Python, SQL, R), Policy Analysis, and Research Design.

- b. A clearer comparison emerges when examining Information Design and Information Science without Social Data Science. Information Science shows a broader and more diverse range of technical skills, nearly twice that of Information Design, covering areas such as Cybersecurity, Programming (Python, SQL, R, Javascript), Data Analysis, Project Management, Database Management, and Data Ethics. Information Science includes four concentrations within the major, Cybersecurity & Privacy, Data Science, Digital Curation, and Health Information. In contrast, Information Design leans more toward user-focused and applied design skills, with strong representation in User Experience (UX/UI), Project Management, Human-Centered Design, and Digital Literacy.
- c. Despite these differences, certain skills, such as Data Visualization, Programming (Python, SQL, R, Javascript), Programming, Digital Literacy, and Human-Centered Design appear across all three programs, indicating a shared foundation in tech and design literacy. Overall, the distribution of skills reflects each program's unique focus, with Social Data Science offering the most technically intensive curriculum, Information Science maintaining a broad technical scope, and Information Design emphasizing user experience and applied design skills.
- d. This visualization reveals notable differences in how soft skills are distributed across the iSchool programs. Social Data Science has a significantly higher count

of soft skills, over 200, compared to fewer than 50 in both Information Science and Information Design. This is once again due to the program's wide range of tracks, resulting in more total courses being part of the program. To avoid a misleading comparison, Social Data Science was once again separated from the second chart, allowing for a clearer view of the other two programs. Social Data Science stands out in Communication and Critical Thinking, which dominate the Social Data Science bar. When viewed independently, Information Science and Information Design have relatively similar totals, with Information Science having a slightly higher soft skill count. Both programs emphasize core workplace skills such as Critical Thinking, Communication, Teamwork, and Problem Solving, indicating that all three majors, regardless of technical focus, prioritize preparing students for collaborative and adaptive professional environments.

- e. This interactive iSchool Course-to-Career Skill Explorer was developed to bridge the gap between coursework and real-world job requirements. By connecting each course in the University of Maryland's College of Information Studies (iSchool) to key job-relevant skills, this tool helps students, advisors, and employers better understand the value of the iSchool curriculum in today's job market. All job skills listed in this tool were identified through market research on Maryland's workforce needs, with a focus on emerging roles, high-growth industries, and skill gaps outlined in regional labor reports and job postings. Rather than simply listing jobs or skills, this tool allows you to explore both directions. You can search by course code and job roles.

5. Impact (Rich):

- a. The white paper we developed aims to expose businesses to the multitude of skills that iSchool students develop from their education.
 - i. This directly aligns with iConsultancy's mission to sharpen the skills of iSchool students and help them stand out in the job market by providing opportunities for them to work on real projects that have a real impact.
- b. The Excel tools that we developed aim to help students in the iSchool be more familiar with their potential in the job market, which directly meets the needs of our client.

6. Reflection (Rich):

- a. The biggest challenge we faced was the time constraint. This is a challenge that every group faced due to the very late start to the semester.
 - i. Made it hard for data collection
- b. Visualizing qualitative data was also another challenge we faced. Trying to quantify "Skills learned" was difficult and added on to the initial difficulty of collecting data
- c. During the beginning of the project we definitely got caught up trying too hard to understand exactly what our role in iConsultancy was, setting smaller goals and worrying less about the overarching goal of our project actually helped move us along faster and understand what we wanted to do.

7. Next Steps:

- a. Potentially add a built-in version of the Course-to-Career Skill Explorer to the iConsultancy or iSchool website

- b. Convert the data and graphs into the kinds of infographics that could be hung on the wall in Hornbake, for example
- c. Refine the datasets by adding skills collected through conducting additional interviews with iSchool graduates in the industry
- d. Maintain the data to ensure it stays up to date with current job skills demand and the roles iSchool students are qualified for (e.g. adding new job roles that pop up in growing industries)