

# Federica Bologna

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## Education

### Cornell University

Ph.D. in Information Science | Minor: Sociology

Ithaca, N.Y.

Expected May 2026

### Cornell University

M.S. in Information Science

Ithaca, N.Y.

Feb 2024

## Selected Work Experience

### NYC Health + Hospitals

New York, NY

Siegel Family Endowment [PiTech PhD Impact Fellow](#)

Jun - Aug 2023

- Evaluated management of medical alerts by comparing pre- and post- intervention alert rates using non-parametric statistical testing.
- Demonstrated that revising alert criteria can reduce unnecessary alerts by up to 94%, while improving alert design can reduce overridden alerts by up to 64%.
- Provided strategies to revise alerts to hospital leadership, soon to be implemented by the informatics team.

### Cornell University

Ithaca, NY

Teaching Assistant for [Studying Social Inequality with Data Science](#)

Jan - May 2023, Jan - May 2024

- Taught weekly sections with 75 students focused on data science, statistical analysis, and machine learning.
- [Delivered a lecture](#) on non-parametric estimation of causal effects and [curated a class activity](#) on how to explore datasets to answer social science questions.

## Selected Projects

### Causal Effect of Character Gender on Readers' Preferences

Ithaca, NY

Cornell University

Jan - May 2024

- Designed and coordinated a randomized survey experiment with 3,000 participants.
- Conducted non-parametric estimation of the causal effect of character gender on reader behaviors.
- Demonstrated that character gender only minimally effects readership, encouraging publishers to promote books featuring women characters.

### Reddit Users' Perceptions of Excision and Ablation Surgery

Ithaca, NY

Cornell University, Weill Cornell

Jun - Sep 2023

- Analyzed 15,000+ posts from endometriosis online communities using few-shot classification with GPT-4, supervised classification with DistilBERT, and LDA topic modeling to uncover user needs and perceptions.
- Published findings in the [Journal of Minimally Invasive Gynecology \(JMIG\)](#).

## Skills

**Programming** Python (Scikit-learn, BERT, Spacy, NLTK, Pandas, NumPy, Matplotlib, Plotly, Seaborn etc.), R (tidyverse), Bash, SQL

**Tools** Git(Hub),  $\text{\LaTeX}$ (Overleaf), Qualtrics, Hugging Face, Microsoft Office

**Methods** NLP (supervised classification, topic modeling, etc.), Quantitative (causal inference, data science, statistical testing, randomized experiments), Qualitative (surveys)