Federica Bologna

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Education

Cornell University *Ithaca, N.Y.*
Ph.D. in Information Science | Minor: Sociology *Expected May 2026*

Cornell University *Ithaca, N.Y.*
M.S. in Information Science *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 300,000+ 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.
- Presented findings to stakeholders at the American Association of Gynecologic Laparoscopists (AAGL).

Skills

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