

# Naomi Lynch

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## EDUCATION

### The University of Pennsylvania

MSE in Data Science (GPA: 3.67)

Philadelphia, PA

Expected May 2027

Relevant Coursework: Big Data Analytics, Database & Information Systems, Applied Machine Learning, Foundations of AI: Deep Learning Applications

### Brown University

BA in Psychology; Certificate in Data Fluency (GPA: 3.91)

Providence, RI

May 2023

Senior Capstone: Understanding the Interplay of Social Context and Physiology on Psychological Outcomes in Trauma-Exposed Adolescents (R01MH108641, Nugent)

## WORK EXPERIENCE

### University of California, San Francisco Eating Disorders Program

San Francisco, CA

Clinical Research Coordinator

July 2023 - June 2025

- Led creation of new team protocol for clinical assessment and research consenting for patient outcomes data collection for over 300 new patients and caregivers who have presented to the clinic since Fall '23, tripling the clinic's annual research consent total.
- Managed creation, cleaning, and upkeep of the program's database containing hundreds of families' assessment, in-treatment, behavioral, and medical data utilizing SPSS and Python for future research within the team.
- Supported 2 clinical trials by running clinical interviews with patients to assess mood, OCD, and eating disorder symptoms, analyzing and visualizing data in Excel and Python, and streamlining study protocol.
- Collaborated with staff psychologists on 4 NIH-funded research endeavors through data collection and entry, data analysis in R and Python, literature reviews, and manuscript writing for journal submission.

### Warren Alpert Medical School of Brown University, Rhode Island Resilience Lab

Providence, RI

Undergraduate Research Intern

June 2022 - May 2023

- Processed large datasets containing 80,000 chronological participant social media messages into topic-based conversations in Excel for analysis.
- Collaborated with research teams in weekly coding consensus meetings to discuss cleaning application schemes, ensure coder consistency, and train several new team members.

### Brown University Language and Thought Lab

Providence, RI

Undergraduate Research Assistant

January 2021 - June 2022

- Assisted in designing, testing, and implementing 4 studies on logical reasoning and pragmatics for children interested in participating in linguistics research.
- Supported data collection and management; entered and verified data in Qualtrics and Excel.
- Conducted literature searches, created stimuli in Photoshop, ran participants through online studies via Zoom, captioned videos for data analysis, and coded over 20,000 child utterances for lab research.
- Maintained the database and executed participant recruitment and outreach via email, phone calls, and solicitation pamphlets to hundreds of families on behalf of Brown Developmental Labs.

## **PUBLICATIONS**

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1. Reilly, E. E., Gorrell, S., Duffy, A., Blalock, D. V., Mehler, P., Brandt, H., McClanahan, S., Zucker, K., Lynch, N., Singh, S., Drury, C. R., Grange, D. L., & Rienecke, R. D. (2024). Predictors of treatment outcome in higher levels of care among a large sample of adolescents with heterogeneous eating disorders. *Child and Adolescent Psychiatry and Mental Health*, 18(1).
2. Drury, C. R., Reilly, E. E., Lynch, N., Accurso, E. C., & Huryk, K. M. (2025). Body Image Group as Adjunct to Eating Disorder Treatment: Feasibility, Acceptability, and Early Outcomes. *medRxiv*.
3. Drury, C. R., Singh, S., Manzano, M., Gorrell, S., Reilly, E. E., Odette, M., Accurso, E. C., Brosof, L., Bruett, L., Forsberg, S., Haas, V., Hail, L., Huryk, K. M., Keyser, J., Kramer, R., Lynch, N., Murray, S. B., Radin, R. M., Underhill, J., & Zucker, K. (2025). Comparing Outcomes for Telehealth Versus In-Person Family-Based Treatment: A Retrospective Chart Review. *International Journal of Eating Disorders*.
4. Singh, S., Reilly, E. E., Drury, C. R., Duffy, A., Mehler, P. S., Accurso, E. C., Zucker, K., Lynch, N., Le Grange, D., Rienecke, R. D., & Gorrell, S. (2025). Preliminary validation of developmental weight suppression in youth with transdiagnostic eating disorders. *Journal of eating disorders*, 13(1), 163.

## **LEADERSHIP & VOLUNTEER EXPERIENCE**

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### **Sexual Health Advocacy and Peer Education**

**Providence, RI**

*Student Facilitator*

*September 2022 - May 2023*

- Taught sexual education classes to 15-20 students once a week for a full semester at various Providence charter schools with topics such as anatomy, relationships, and contraception.
- Participated in workshops on Brown University's relationship with the Providence community, how to facilitate conversations about sensitive topics, and diversity, equity, and inclusion.
- Provided feedback on lesson plans, created bilingual (Spanish) activities for students to participate in, and connected students to sexual health-related resources.

### **Orientation Welcoming Committee**

**Providence, RI**

*Orientation Leader*

*September 2021 - May 2023*

- Planned events for first-years to facilitate bonding, such as games night, trivia night, talent shows, etc., and facilitated workshops on mental health, inclusion, and culture of consent.
- Served as a mentorship resource to provide guidance on academic programming, clubs, research, internships, volunteer opportunities, and navigating social life.

### **Swearer Tutoring Enrichment in Math and Science (STEMS)**

**Providence, RI**

*Academic Tutor*

*February 2020 - January 2022*

- Tutored students at Hope High School twice a week in Algebra and Geometry.
- Assisted teachers in student involvement in the afterschool program. Created STEMS posters to hang around the school, and talked to interested kids about what the program has to offer.

## TECHNICAL PROJECTS

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### FLAVOR BASE - A Data-driven Recipe Search & Recommendation Platform

*Technologies: SQL (PostgreSQL), Python (Pandas), AWS RDS, Github, Node.js, React.js* Winter 2025

- Designed a normalized relational database (3NF/BCNF) supporting 231K+ recipes and 1.13M user interactions, enabling scalable analytical queries.
- Developed and optimized complex SQL queries (CTEs, joins, aggregations) to power search, recommendations, and leaderboards, reducing runtimes from minutes to sub-second.
- Built a full-stack web application interface with features including recipe search, recommendations, and user profiles.

### Supervised Classification of Disease Risk from Health & Lifestyle Data

*Technologies: Python (Pandas, Matplotlib, Scikit-learn, DuckDB), Google Colab* Fall 2025

- Applied supervised classification to 100K+ health and lifestyle records to predict disease risk outcomes, using logistic regression as a baseline.
- Addressed class imbalance via undersampling and compared Random Forest and XGBoost models with systematic hyperparameter tuning.
- Tuned models using GridSearch (Random Forest) and RandomizedSearch (XGBoost), evaluating results using ROC-AUC, F1 score, precision and recall, emphasizing F1 due to clinical tradeoffs between false positives and false negatives.

## SKILLS

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**Programming Languages:** Python (e.g. Pandas, Matplotlib, SciPy, Scikit-learn), SQL, Apache Spark, R

**Other Software:** Amazon Web Services (AWS), SPSS, Excel, RedCap, Qualtrics, Tableau, Trello

**Research:** Clinical Interviewing, Recruitment, IRB, Behavioral Coding, Academic Writing, Literature Review