REBECCA R. RINEHART

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EDUCATION

Master of Science in Data Science, *New York University* May 2026
Coursework: Machine Learning, Big Data, Deep Learning, Probability and Statistics, Natural Language Processing

Bachelor of Science in Biochemistry, University Honors, *The University of Texas at Austin* May 2022
GPA: 3.86; Minor in Chinese

KEY SKILLS

Python (Pandas, NumPy, scikit-learn, NLP, spaCy, TweetNLP), SQL (MySQL, Snowflake), Database Management, Machine Learning (Regression, Classification, Supervised Learning, Random Forests, Gradient Boosting, SHAP), Data Visualization (Matplotlib, Dash, Looker Studio, Seaborn, Plotly), Excel, Experimental Design and Planning, Training, Public Speaking, Verbal and Written Communication, Process Improvement, Project Management, Git version control, command line

Leadership: NYU Graduate Community Building Group, Women in Data Science

PROFESSIONAL EXPERIENCE

Research Associate – *Natera* Feb 2023 – Jul 2024
- Developed Python ETL scripts to aggregate and clean data, ensured data integrity through quality control; reduced time to upload by 30x
- Implemented a user-friendly script interface for use by non-technical team members, expanding usage from 2 to 20 employees
- Presented data reports and visualizations of occupancy metrics at monthly meetings with stakeholders across 4 teams
- Designed ad hoc SQL queries in Snowflake for sample location data extraction, reducing project turnaround time by 12x
- Managed 15+ group interviews, standardized assessment of candidate fit with company culture; contributed to 12 successful hires

Lab Technician II – *Nulixir* Oct 2022 – Feb 2023
- Conducted in-depth experimentation, leading to creation of two novel product formulations and over 30 samples distributed to clients
- Collaborated with a small team, balancing competing priorities; supported completion of 3 high-priority product lines
- Pioneered a visual reporting initiative to present experimental results with relevant graphs, empowering management to make data-driven results; received CEO approval and adopted by 100% of lab technicians upon implementation

Research Intern – *Asuragen* Jun 2022 – Sep 2022
- Optimized reverse transcription technology used by two research teams in an independent project, improving assay recovery by 5x
- Facilitated communication of experimental data and visualizations to a cross-functional, multi-company team on a weekly basis

Undergraduate Research Assistant – UT Austin, *Keitz Research Lab* Jan 2019 – May 2022
- Designed an individual research project, including project proposal and abstract, and presented findings at Fall Undergraduate Research Symposium, placing second in Synthetic Biology category
- Presented research and analytical results at weekly group meetings, subgroups, and poster sessions, and contributed research for publication in Nature Chemical Biology
- Spearheaded experimental design and literature review, performing statistical data analysis to validate gene circuit prototype

PROJECTS

Regression Model to Predict Ticket Turnaround Time (TAT), *Natera Mentorship* Apr 2024 – Jul 2024
- Trained random forest regression model to identify key features of 700 JIRA sample requests, providing insight on which 10 features of a request most significantly impact TAT
- Leveraged SQL to extract and aggregate data for use in feature engineering, enabling introduction of important features and improving model performance measured by root mean squared error (RMSE)
- Communicated data-driven insights to a non-technical audience; recommended process changes to enhance JIRA workflows and increase TAT reporting accuracy across 6 pillar research projects and 23 employees

Analysis of Halted Clinical Trials Aug 2023 – Nov 2023
- Analyzed 13,000 clinical trials to derive patterns in trial categories and sponsors most frequently halted
- Designed and implemented an interactive dashboard with Dash and Plotly to communicate key insights, optimizing design with CSS
- Published a report on Medium of background research, data analysis, dashboard design, and key insights, garnering 230 reads

Method for Concentrating cfDNA in Signatera Workflow, *Natera Mentorship* Apr 2023 – Oct 2023
- Evaluated new method for creating workflow study samples, achieving 96% assay sensitivity; confirmation of method feasibility increased eligible number of samples for R&D use
- Analyzed experimental findings and created Plotly visualizations at company-wide mentorship presentation day with 100+ attendees