

Nyack, NY  
Portfolio: [github.io/jbecker7326](https://github.io/jbecker7326)

**Jennifer Becker**

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## EDUCATION

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- **Georgia Institute of Technology** Atlanta, GA  
*Master of Science in Computer Science; GPA: 4.0* Aug. 2022 – Expected May 2024
- **State University of New York at New Paltz** New Paltz, NY  
*Bachelor of Science in Environmental Geochemistry; GPA: 3.5* Aug. 2013 – May 2017

## EXPERIENCE

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- **Anchor QEA** Woodcliff Lake, NJ  
*Environmental Data Scientist* Mar. 2020 - Aug. 2022
  - Collaborated with project executives to comprehend business problems and propose custom dashboard designs with real-time database integration, tailored to client-specific requirements.
  - Leveraged Python to develop data extraction, cleansing, visualization, and statistical analysis algorithms, enabling the delivery of meaningful insights and innovative business solutions.
  - Maintained strong accountability for data completeness and quality control in relational databases, emphasizing meticulous attention to detail and data management skills.
  - Strategically optimized ETL pipelines to gather, prepare, cleanse, and transform client data, resulting in significant efficiency gains in data workflows between data science and project management teams.
- **Grid Logistics** Kearny, NJ  
*Software Developer (Field Technician)* Aug. 2018 - Mar. 2020
  - Developed algorithms with R and LaTeX for generating statistical analysis tables, formatted spreadsheets, and PDF summary reports, contributing to data-driven decision-making processes.
  - Designed SQL queries and analyzed environmental compliance reports to provide actionable recommendations for stakeholders, demonstrating strong problem-solving and consulting skills.
  - Fostered client relationships through proactive site visits, frequent meetings, and meticulous management of soil logistics, ensuring seamless communication and customer satisfaction.

## PROJECTS

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- **Molecular Graph Network** July 2023  
Links: [GitHub](#), [Report](#)
  - Implemented a Graph Neural Network (GNN) architecture using PyTorch Geometric for precise node classification within the protein-protein interaction (PPI) dataset.
  - Designed a novel combination of Molecular Fingerprint Convolution (MFConv) and Graph Isomorphism Network (GIN) layers, resulting in an F1 score within 5 points of the benchmark while reducing runtime by 67%.
- **Yelp Fake Review Analysis** May 2023  
Links: [GitHub](#), [Video Presentation](#)
  - Deployed various machine learning classifiers, including SVM, KNN, Naive Bayes, Logistic Regression, and Random Forest, via scikit-learn to effectively classify fake reviews within the Kaggle Yelp dataset.
  - Engineered innovative features for sentiment analysis with TF-IDF and implemented oversampling with SMOTE, resulting in a notable 12% increase in recall.
  - Developed a user-friendly, interactive visualization application employing D3.js as an analytical tool to uncover sectors negatively impacted by fake reviews within suburban populations.

## SKILLS

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- **Languages:** Python 3 (Matplotlib, NumPy, Pandas, PySpark, PyTorch, scikit-learn, SciPy, SQLite), R (data.table, envstats, ggplot2), SQL (PostgreSQL, T-SQL), JavaScript, Java, Scala, C#, HTML5, CSS.
- **Technologies:** Amazon Web Services (AWS), DataBricks, Docker, Git, Google Cloud Platform (GCP), Tableau.