# Jennifer Becker

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### EDUCATION

### • 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

### 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**

### • Molecular Graph Network

 $Links:\ GitHub,\ Report$ 

July 2023

- 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

Links: GitHub, Video Presentation

May 2023

- 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.
- $\circ$  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

- 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), CoLab, DataBricks, Docker, Git, Google Cloud Platform (GCP), Tableau.