TEGAN MARIANCHUK

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SKILLS

Computer Languages	Primary: Python (scikit-learn, pandas, numpy, scipy, jupyter, FastAPI, Flask, SQLAlchemy) & PostgreSQL; Secondary: html/css/js & bash
Tools	AWS (ec2, s3, Glue, Athena), Github/git, Sisense-BI & Analytics, MS Excel, GCP

PROFESSIONAL EXPERIENCE

Data Scientist *October 2021 - present*
Eligo Energy, LLC.

- Built several machine learning models (GBMs) with Python including a cost prediction model, as well as a customer retention model to predict customer lifetime value.
- Developed microservice APIs deployed on AWS, using Python's FastAPI, uvicorn, and nginx to serve machine learning insights as internal tools used company-wide, as well as integrated into our customer facing website to produce real time, model-driven, custom product offers.
- Created automated scripts and dashboard tools with PostgreSQL and Python for backtesting our data driven models to assess monetary performance and provide BI visualization before putting models into production.
- Implemented a price sensitivity model to improve the annual profit margin of variable rate customers by leveraging customer churn prediction.

NSF Graduate Research Fellow *July 2019 - September 2021*
University of Chicago

- Employed molecular dynamics simulation software, enhanced sampling algorithms, and analysis techniques using machine learning methods (feature extraction, dimensionality reduction, clustering, and Markov State Modeling) to computationally investigate the molecular mechanism of circadian rhythm.
- Used Python programming and bash scripting languages for automating workflow, performing data analysis, and visualizing simulations.

EDUCATION AND HONORS

University of Chicago *August 2019 - September 2021*

- Master of Science in Biophysical Sciences
- National Science Foundation Graduate Research Fellowship Program recipient (the NSF GRFP is awarded to $< 15\%$ of applicants)

Arizona State University *2014 - 2018*

- Bachelor of Science in Biophysics, Minor in Chemistry
- Barrett Honors College, Graduated Summa Cum Laude 3.87 GPA

PERSONAL PROJECTS

Dashboard/Data Visualization Project
Using Python's Streamlit

- Used Spotify's API with Streamlit and SQLite to create a personalized, interactive dashboard to analyze and visualize historical musical statistics

Rest API/CRUD Project
Using Python's FastAPI

- Built a digital library CRUD app using FastAPI, postgreSQL, and SQLalchemy for backend and html/css/js(bootstrap) for frontend