

SKILLS SUMMARY

- 2.5 years of professional data engineering experience. Core data stack:
 - AWS + Snowflake (user/role/object management, clustering, external tables)
 - dbt (custom packages, macros, tests)
 - Python (pandas, requests, multithreading) and R (tidyverse)
 - Attunity
 - Kafka + NiFi
 - Cronacle
- Data Visualization: Tableau, R (Shiny)
- DevOps: Git, GitHub, Azure DevOps, Azure Pipelines
- Graduate-level math, stats, and computer science, including machine learning theory and applications

RELEVANT WORK EXPERIENCE

10/19-Present Associate Data Engineer | Love's Travel Stops | Oklahoma City, OK

- US Gasoline and Diesel Procurement, Supply Optimization, and Trading Agreement
 - This project constituted a multibillion-gallon fuel agreement between Love's and Circle K in which Love's (via Musket) would handle a percentage of Circle K fuel purchases
 - OvA ("OPIS versus Actual")
 - The core data flow for the project from which key metrics were produced that allowed analysts to compare actual fuel purchase performance against OPIS benchmarks
 - Personally designed, implemented, deployed, orchestrated, monitored, and maintained all custom ELT/ETL pipelines (both for Love's and Circle K) into and out of Snowflake
 - The overall pipeline efficiency (>98.5%) has consistently exceeded the baseline SLO (95%)
 - Tools: Attunity, Snowflake, dbt, Python, Cronacle, Tableau
 - Supply Performance Indicator
 - Business had tasked the fuel analytics team with building out a custom dashboard for the project; they tried unsuccessfully to implement a solution in Tableau for three months before reaching out to my team
 - Personally designed and implemented a dynamic dashboard in R Shiny (and accompanying ELT of data)
 - The dashboard played a critical role in early contract negotiations; received "kudos" from higher-ups
 - Tools: R Shiny, Snowflake, bash, cron
- Nightly Fuel Volume Tracking
 - Customer analytics team requested automation of analyses of the effects of price changes on nightly fuel volume
 - Assisted with ELT implementation and dashboard creation; major contribution was a summary dashboard that included a custom scorer to draw attention to underperforming stores
 - Estimated 15+ hour per week reduction in manual work time for customer analytics team
 - Tools: dbt, Snowflake, Cronacle, Tableau
- Process Improvements
 - Identified, designed, and implemented multiple internal process improvements
 - Created a template using the Python cookiecutter package for initialization of dbt projects, which reduced project start times and standardized dbt configurations across repos
 - Created a Cronacle job chain template that included dbt source freshness checks and post-run tests (with alerts), which reduced unnecessary compute time and increased pipeline health and monitoring
 - Designed and implemented a "slim-CI" dbt pipeline in Azure DevOps to run automated tests following pull requests, which increased pipeline stability across projects while maintaining low compute costs
 - Tools: Python, dbt, Cronacle, Azure DevOps, Azure Pipelines, bash
- Summer 2022 Intern Mentorship Program (*in progress*)
 - Currently mentoring an intern for three months
 - Worked with supervisor to come up with summer projects (in particular, designed an end-to-end pipeline to parse dbt run artifacts and visualize the data in Tableau); will guide the intern in the implementation of project(s)

EDUCATION

- 08/18-07/19 Completed coursework toward Ph.D. in Applied Mathematics | University of Delaware | Newark, DE
- Awarded \$3600 UNIDEL summer research grant to investigate stochastic models related to protein folding
 - Passed preliminary exams in Real Analysis and Vector Spaces
- 01/17-05/18 M.S. with honors in Applied Mathematical Science | University of Central Oklahoma | Edmond, OK | GPA: 4.00
- Thesis: *Existence Results for a Class of Even-Order Boundary Value Problems*
 - Co-authored two papers; presented research at 2018 MAA national conference in San Diego, CA
- 08/10-05/16 B.S. in Mathematics, Minor in Computer Science | University of Central Oklahoma | Edmond, OK | GPA: 3.47
- Awarded the Department of Mathematics and Statistics Outstanding Graduating Senior Award
 - Co-authored two papers; presented research at state, regional, and national mathematics conferences; won Best Undergraduate Presentation Award at 2016 MAA OK-AR regional conference