Lee Goerl, PhD

lgoerl@gmail.com
620-786-4561

github.com/lgoerl
linkedin.com/in/lgoerl

Post-Secondary Education

PhD: Kansas State University, Mathematics (December 9, 2016)

Professional Training: The Data Incubator, Data Science (November 11, 2016)

Data Science, Analytics, and Engineering Experience

- **PepsiCo ROI (Feb 2021 - Feb 2022):** *Data Engineer*, generally responsible for building, maintaining, and operating media pipelines and coordinating raw quarterly deliveries from media partners at Facebook/IG and Google/YouTube. Owned procurment/processing of external data for new market modeling. Introduced testing concepts that helped the team increase coverage by 58%, and DBT practices allowing us to consolodate our reporting pipelines in a much more transparent manner.
  - **Saturation Curves:** Media contribution is modeled against impressions, spend, and several other factors. The media buying team uses the curves to understand ROI of their MMM plans and make informed decisions about yearly spending to find the optimal level of execution across all their channels. I took it from ad-hoc request fulfillment via notebook to automated pipeline with alignmnet and validation processes, interfacing directly with our platform and business teams. Additionally, I worked with our EU business and engineering teams to extend coverage to those markets and tune the models to their specific needs.
  - **API integrations:** Built POC and productionized the first integrations for my team. Led contractors to implement additional integrations.
- **Blue Bottle (Jul 2017 - Jan 2021):** *Software Engineer*, originally hired to work on retail demand forecasting. Eventually was the sole data engineer flexing into analytics reporting to leadership.
  - **Retail Bean and Culinary Forecasting:** *V1* Built a framework in Python to productionize training predictive ensemble SARIMAX models to generate demand forecasts for each of our food items, and a delivery/management system. Much of my work on this project was focused on improving reliability and performance, completely automating model training of forecast models, reducing lead-time for forecasting for new locations, expanding the number of forecastable items, and expanding test coverage of the codebase. Designed and analyze experiments to determine length of data series required and what loss functions were more performant for training our ensemble. We also implemented a version to forecase retail bean sales and coordinated with our production and cafe teams to implement inventory tracking. *V2* Led a team of consulting ML engineers, providing business/process insight, building the necessary data pipelines, performance and SLA monitoring, an ensemble step, and dev ops. We rebuilt the original model and infrastructure to employ an LSTM RNN and data external to each individual sales series.
  - **Analytics and BI:** Rebuilt our BI infrastructure to utilize DBT, Fivetran (in addition to our own custom integrations), and Sigma. I rebuilt our subscription eventing logic, and implemented customer LTV models tying together app and eComm users supporting subscriptions, merch, retail coffee, and cafe sales.
- **QuasiCoherent Labs:** Co-founded in 2015 to offer consulting on data products to non-profit organizations. I have consulted with clients to design and spec projects to their needs. Discussed processes to be modeled and relevant data and its collection with their domain experts. Most recently, consulted on and provided research and graphics for the book *When it Finally Happens (2019)* by Mike Pearl.