

# Mark Druffel

## Data Scientist & Analytics Engineer



### Summary

Versatile data scientist who finds the strategic opportunities hiding in technical work and turns them into a story the business can act on. 10+ years experience in data strategy, analysis, engineering, and project management with a proven track record building scalable platforms, leading teams, and delivering measurable outcomes.

### Experience

#### Lead Data Scientist

84.51° | Remote  
Nov '22 - Present

##### Libraries

kedro, ibis-project,  
pyspark, delta,  
statsmodels,  
scikit-learn, uv,  
pandera, pointblank

##### Other Tools

databricks, medallion  
architecture,  
unitycatalog, duckdb,  
azure, quarto

Lead a data science team building tools and insights behind Kroger Marketing's campaign strategy and execution. Built the case for and delivered a composable measurement pipeline cutting compute costs by \$200K annually and speeding up feature development by 2.5x.

**Data Pipeline Modernization Project** - designed, pitched, and delivered a fully composable campaign measurement pipeline to deliver uplift and other KPIs at the pace of the business.

- Created and presented the proposal that secured stakeholder alignment and approval.
- Championed the novel use of kedro and ibis to enable composable, local development improving the team's new-feature velocity by 2.5x.
- Implemented dynamic predicate pushdown, reducing runtimes by 9x and Databricks compute costs by \$200K annually.
- Designed a layered architecture enabling plug-and-play model prototyping, enabling the team to develop new uplift models that drove 4x higher household penetration and uplift.

**Agentic Infrastructure Development** - developed a suite of Claude skills and agents to assist with pipeline development and operations lowering the learning curve and improving quality.

**Campaign Management App Design** - partnered with engineering to create data model design.

- Led stakeholder interviews to understand requirements.
- Designed recursive campaign hierarchy, unlocking several feature requests.

#### Senior Data Analyst

DocStation | Remote  
Apr '21 - Nov '22

##### Libraries

shiny, tidyverse,  
pyspark, leaflet, sf

##### Other Tools

airflow, superset, aws  
snowflake, docker

Founding member of a startup enabling pharmacists to deliver value-based care. Led all analytics initiatives and contributed to data engineering infrastructure. Built pharmacy targeting dashboard that increased signups by 15%.

**New User Targeting Dashboard** - designed and developed a full-stack dashboard enabling product to identify and prioritize new pharmacy targets, increasing pharmacy signups by 15%.

- Built a nationwide pharmacy dataset from open-source data, merged it with internal records, and augmented it with demographic and geospatial features to enable targeting metrics.
- Developed an interactive dashboard used for exploring a map of target pharmacies, a sortable metrics table, and dynamic cross filtering.

**Patient Targeting Analysis** - performed recurring targeting analyses that improved the platform's targeting model and surfaced ad hoc targeting opportunities.

#### Analytics Consultant

Propeller |  
Portland, OR  
Jan '17 - Apr '21

Led data strategy, analysis, architecture, BI, and development projects for clients including Nike, Salesforce, KinderCare, Cambia, and Mercy Corps. Built an internal analytics practice that saved \$250K annually and delivered reporting and analytics solutions to the company.

**Internal Analytics Practice** - created an internal analytics practice to refine implementation plans for client work by building a suite of tools including a consultant-utilization Slackbot and a data-driven recruiting process, improving recruiting quality and saving \$250K annually.

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| <div>Libraries</div> <div>tidyverse, dbplyr, shiny, tidytext, prophet, fable, d3.js</div> <div>Other Tools</div> <div>rmarkdown, Powerpoint, aws, databricks, Neo4j, sqlite, slackbot, Invision</div>                                                                                                      | <div>User Feedback Pipeline - transformed a weeks-long, static reporting process into a real-time feedback loop for a mobile app team, enhancing their ability to incorporate user behavior and feedback into their priorities.</div> <div> <ul style="list-style-type: none"> <li>Built API wrappers to collect and merge usage, issue, and survey data, and an NLP model to mine survey responses to generate new attributes for metrics.</li> <li>Delivered a dashboard with KPIs and exploratory analytics tools.</li> </ul> </div> <div>Data-Driven Recruiting Prototype - designed a prototype recruiting dashboard to realize an SVP's data-driven recruiting vision.</div> <div> <ul style="list-style-type: none"> <li>Led org-wide stakeholder interviews to map process and deliver change management.</li> <li>Designed and developed a data model that merged several systems to provide an end-to-end picture of the recruiting pipeline and KPIs.</li> <li>Designed and developed a functional prototype dashboard with drill-down by discipline, team and recruiter, improving transparency and communication throughout the org.</li> </ul> </div> <div>Analytics Workshops - developed and facilitated PMO workshops on how analytics projects differ from software projects, improving their analytics project planning capability.</div>       |
| <div>Reporting Manager</div> <div>Northern Trust   Chicago, IL</div> <div>Oct '15 - Dec '16</div> <div>Libraries</div> <div>pandas, d3.js, stats, ggplot2, xml2</div> <div>Team Lead</div> <div>Sept '13 - Oct '15</div> <div>Libraries</div> <div>pandas</div> <div>Tools</div> <div>Excel, Tableau</div> | <div>Managed a new product team, formed in response to my prior systems analysis, building tools, infrastructure, and strategy for the business intelligence operations team.</div> <div>Regression Testing Tool - designed and developed a Python tool to automate data model regression testing, reducing release issues by 4x within six months.</div> <div>Nextgen Reporting Application - designed and developed an MVP SaaS business intelligence application with pre-built reports for hedge fund managers using d3.js and React.</div> <div>Legacy System Monitoring Tools - designed and developed telemetry-based monitoring system with KPIs and demand forecasting, enabling hardware planning, tech debt management, and new client onboarding without unexpected slowdowns.</div> <div>Led a global team of business intelligence and operations analysts responsible for data modeling, reporting, and access management across the entire platform, serving internal users and clients with over \$200B in AUM.</div> <div>Reporting Systems Analysis Project - spearheaded a holistic systems analysis of log data, systems metadata, and process data that identified architectural issues, pipeline bottlenecks, and process inefficiencies. Documented findings in a report that led management to create a new analytics product team.</div> |
| <div>Audit</div> <div>Jun '10 - Sept '13</div> <div>Tools</div> <div>Excel, vba</div>                                                                                                                                                                                                                      | <div>Senior Auditor - Plante Moran   Chicago, IL   Mar '13 - Sept '13</div> <div>Staff Auditor - Plante Moran   Chicago, IL   Jun '11 - Mar '13</div> <div>Staff Auditor - Fifth Third Bank   Cincinnati, OH   Jun '10 - Jun '11</div> <div>Started career in audit. Developed understanding of financial reporting, internal controls, process analysis, and stakeholder communication.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |
|                                                                                                                                                                                                                                                                                                            | Education                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
| <div>MSBA</div> <div>Notre Dame</div> <div>BA</div> <div>Ohio University</div> <div>Hobbies</div>                                                                                                                                                                                                          | <div>Notre Dame (2016)</div> <div>Master's in Business Analytics, coursework in data management, statistics, operations research, and machine learning</div> <div>Ohio University (2010)</div> <div>Bachelor of Business Administration, Triple Major Accounting, Finance, &amp; Management Info Systems</div> <div>Open-Source Work</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |
| <div>Rock climb, bike, DIY, read, travel, games</div>                                                                                                                                                                                                                                                      | <div>Contributions to the kedro, ibis-project, and pointblank repos, and authored the harvestR and bambooR repos.</div>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                            |