

Will Shelley

Director of Product Analytics | Data Science Leader

2025-06-21

Profile

Strategic and hands-on analytics leader with 10+ years of experience guiding cross-functional teams to deliver product insights, optimize user experiences, and drive growth through data. Expert in A/B testing, causal inference, machine learning implementation, and product experimentation. Adept at partnering with Product, Engineering, and Business stakeholders to align analytics with strategy. Known for building high-performance teams, mentoring talent, and translating complex data into clear, actionable decisions.

Skills

- **Analytics Leadership:** Experiment Design, Product KPIs, Growth Analytics, LTV, Segmentation, Funnel Optimization
- **Product & Web Analytics:** Amplitude, Tableau, Looker, Google Analytics, A/B/n Testing, Event Taxonomy
- **Technical Expertise:** SQL (expert), R, Python, dbt, BigQuery, Snowflake, Git, Azure, GCP
- **Modeling Techniques:** Causal Inference, Time Series Forecasting, Clustering, Recommenders, ML Deployment
- **Team Enablement:** Agile Analytics, Strategic Roadmapping, Executive Reporting, Talent Development

Education

- **M.S., Applied Economics**, University of Georgia, Athens, GA (2016)
- **B.B.A., Management**, Georgia Southwestern State University, Americus, GA (2013)

Experience

Director of Analytics – Unum Decision Technologies

Unum Group, Chattanooga, TN *(2023–Present)*

- Led company-wide implementation of a modern analytics platform (Posit), enhancing collaboration between Product, Engineering, and Data teams.
- Launched product analytics experimentation using LLMs (GPT, LLaMA) to analyze user interactions, driving 30% reduction in help desk inquiries and \$590K OpEx savings.
- Created reusable reporting templates using Quarto and markdown to standardize insights shared with stakeholders, improving clarity and reproducibility.
- Mentored analysts in R, Python, and experiment design through hands-on cohorts and internal data science meetups.

Senior Manager II – Advanced Analytics

Walmart Inc., Bentonville, AR *(2022–2023)*

- Directed cross-functional experiment programs across merchandising and eCommerce to measure incremental value from product decisions.
- Integrated real-time behavioral data streams to personalize recommendations and drive \$30B apparel assortment optimization.
- Built and deployed ML clustering-based recommender system that replaced manual assortment decisions, saving two weeks of effort.
- Partnered with Product and Engineering to design event-level tracking and improve product instrumentation.

Applied Economist & Demand Analytics Manager

Shaw Industries, Dalton, GA *(2019–2022)*

- Designed and implemented causal inference models to assess impact of promotions and external shocks on product sales.
- Led the shift from spreadsheet-based forecasts to modern predictive models, unlocking \$24M in inventory savings.
- Championed enterprise Tableau rollout and self-service analytics adoption across sales and

product divisions.

- Provided LTV and segmentation analysis to guide executive decision-making on pricing and channel strategy.

Decision Support Analyst / Sales & Marketing Analyst / Applications Administrator

McKee Foods Corporation, Collegedale, TN *(2016–2019)*

- Built statistical models to inform pricing and product strategy across multiple business units.
- Developed interactive dashboards in Power BI and Tableau to track user behavior and product impact for executive teams.
- Created ETL workflows using Alteryx and SQL to support web analytics and customer segmentation.
- Acted as analytics liaison to product teams for experimentation, KPI definition, and insight delivery.

Graduate Research Assistant – Applied Economics

University of Georgia, Athens, GA *(2014–2016)*

- Modeled market behavior and economic outcomes using advanced econometric methods.
- Conducted experimental design and statistical analysis for agricultural research projects.

Projects

- **Product Insights with LLMs (Unum):** Used AI to analyze customer interactions, streamline support flows, and inform product strategy
- **Behavioral Segmentation (Walmart):** ML-driven store clustering and behavior-based modeling for assortment targeting
- **Forecast Modernization (Shaw):** Built predictive demand models integrating external variables and causal inference

Links

- GitHub: github.com/willshelley
- Quarto Website: connect.posit.cloud/willshelley/