

# Joel Rothrock

*Data, AI & partnerships — platform, applied AI, revenue.*

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## SUMMARY

Data and AI engineer building end-to-end ecosystems — platform, applied AI, and the revenue products on top. At Community Impact, built the data and AI function from zero in under a year: Snowflake medallion warehouse, Apollo (MCP-based AI orchestrator), the first attributed-revenue product, and technical lead on inaugural data-partnership deals. Previously \$30M+ in directly attributable operational impact at Applied Materials. M.S. Analytics, Texas A&M (4.0 GPA, Margaret Sheather Award).

## SELECTED IMPACT

### Apollo — MCP-based AI orchestrator

#### COMMUNITY IMPACT

Built an MCP server letting Claude reason across Snowflake, the CIIMS ad-management system, and the CMS. Editors query story performance, sales scopes deals against real-time data, leadership queries the company's full data corpus in natural language. Live in production; built on Anthropic's Model Context Protocol.

### CI Data Platform — zero to production in 6 months

#### COMMUNITY IMPACT

Designed and built CI's first data warehouse — a Snowflake medallion architecture (Bronze/Silver/Gold) ingesting CIIMS, Broadstreet, Beehiiv, and CMS into one unified, governed source of truth. The substrate every CI data product runs on.

### CI Attribution — first attributed-revenue product

#### COMMUNITY IMPACT

Shipped a Streamlit application matching subscriber identity to ad exposures and transactions. Live in production; foundation for CI's first paid data partnerships.

## EXPERIENCE

### Community Impact

OCT 2025 — PRESENT · AUSTIN, TX

#### Senior Data Engineer

Sole engineer building CI's data and AI function — Snowflake platform, Apollo orchestrator, and attribution products (see Selected Impact). Zero to production in under a year.

Built the Customer Data Platform with custom Snowflake UDFs (NAME\_HASH, PHONE\_HASH) consolidating subscriber identity across CRM, newsletter, and CMS systems.

Technical solutions engineer on CI's first data-partnership deals — discovery, scoping, technical due diligence, post-sale data stewardship.

State-designated Texas data point of contact under the TDPSA (Reg #20260080) — filed and own CI's annual data broker registration.

Cross-functional contributions: code on CI's Next.js advertiser site, co-design on the CI360+ Platform Pilot, authored the cross-team Tracker initiative roadmap, founded the internal CI AI Toolkit.

### Applied Materials

AUG 2024 — OCT 2025 · AUSTIN, TX

#### Business Intelligence Analyst | Data Scientist

Cut excess inventory from \$56M to \$44M (\$12M reduction) in 6 months — built Python + SQL ETL pipelines standardizing SAP, finance, and inventory data; partnered with engineering, finance, and procurement leaders on disposition strategy.

Reduced P&L exposure from \$8M to \$1.5M (\$6.5M reduction) by building material consumption forecasts and defending assumptions to VP-level stakeholders via Tableau.

Automated scrap-scoring with k-means clustering — cut review time 86% and surfaced \$30M+ in inventory reposition opportunities.

Delivered \$6.5M in cost avoidance through regulatory-style executive dashboards that cut VP reporting effort 60%.

Built 10+ Python automations across SAP, finance, and inventory workflows — eliminated 350+ hours/yr of manual reporting.

Engineered 20+ Tableau dashboards visualizing \$750M in on-hand inventory and procurement trends across global operations.

# Applied Materials

Global Inventory Analyst → Materials Project Manager → Materials Buyer

Built predictive analytics tools mitigating material exposure across multiple semiconductor product lines; delivered executive reports guiding quarterly strategy and cost-reduction across global operations.

Consolidated SAP, Hadoop, and SharePoint data into unified reporting structures — laid the data foundation that fed every later BI workflow.

## EDUCATION

### M.S. Analytics

Texas A&M University, Mays Business School

GPA 4.0 / 4.0 · Margaret Sheather Memorial Award (best capstone, 2024)

ML capstone: Forecasted \$86M annual / \$301M 3-year savings on scrap disposition vs. legacy process at a Fortune 500 semiconductor manufacturer.

### B.S. Electronic Media & Mass Communication

Texas State University

Cum Laude · Honors Program

## CREDENTIALS

Designated Texas Data Point of Contact — TDPSA Reg #20260080 — State of Texas

## SKILLS

### LANGUAGES

Python · SQL · TypeScript · JavaScript

### DATA & ML

Snowflake · dbt · BigQuery · MySQL · SAP HANA · Pandas · NumPy · scikit-learn · PySpark · k-means · forecasting

### AI

Anthropic MCP · Claude · LLM orchestration · RAG · Identity resolution · Attribution modeling

### ENGINEERING

Astro · Next.js · Tailwind · Streamlit · Tableau · Git · Vercel

### SPECIALTIES

Data Platform Engineering · Applied AI · ETL · Solutions Engineering · Data Privacy & Compliance