Brittany Justice | Pharmacy Intelligence & Optimization Engineer

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PROFESSIONAL SUMMARY

Pharmacy Intelligence & Optimization Engineer. I combine rigorous analytical modeling with scalable engineering to deliver data platforms, optimization and recommendation engines, and decision-support tools that turn complex pharmaceutical and contracting data into actionable business value. Recognized for end-to-end ownership—from discovery to deployment—and for enabling smarter contracting, pricing accuracy, and operational decision-making.

EXPERIENCE

Pharmacy Analytics Engineer | *Premier, Inc.*   *March 2025 – Present*

- Modernized Premier's compounding pharmacy data infrastructure by rebuilding a broken Excel based workbook into a fully modeled **SCD2 medallion architecture (BigQuery + Dataform)** powering **100+ downstream models, dashboards, and tools**—eliminating manual errors and enabling analytics used daily by national pharmacy, sourcing, and clinical teams.
- Developed a **Binary Integer Linear Program formulary-optimization engine** (Python, PuLP) evaluating millions of product–supplier combinations, identifying **$56M in annual savings** across **265 health systems** and supporting strategy for a **50-member national field team**.
- Delivered high-value analytics for **pricing accuracy, invoice validation, FDA/NIOSH compliance, and drug equivalency mapping**, supporting shortage response and generating **$500K+ in revenue** while saving approximately **2,000 labor hours annually**.
- Led team-wide engineering and AI enablement by establishing **Dataform coding standards**, authoring a **SQL style guide**, and building **three Copilot automation agents** that **doubled BI delivery velocity**.

Senior Supply Chain Analyst | *Restore Hyper Wellness*   *November 2022 – Present*

- Engineered Python + BigQuery pipelines (Kedro, Pandas, Pandera, Pytest) processing **$15M+ in annual invoicing**, improving profit margins by **3%** and reducing reporting latency from **5 weeks to 1 week**.
- Built a SQL/Python demand model for **235 clinics**, reducing sterile compound drug waste by **10% per location**.
- Designed BigQuery data marts to streamline **ERP and procure-to-pay workflows** for 503A/503B compounding pharmacies.
- Developed Python applications for **drug expiration analysis**, **compound procurement optimization**, and **prescription workflows**.

Salesforce Administrator, Supply Chain | *Restore Hyper Wellness*   *October 2021 – November 2022*

- Implemented **Salesforce Field Service Lightning**, including a full mobile application, to monetize a **national technician network**.
- Designed an **e-prescription proof of concept** in Salesforce B2B and built **automated compound procurement algorithms** using custom data models.

Category Manager, Medical Supply | *Restore Hyper Wellness*   *January 2021 – October 2021*

- Reduced **out-of-stock events by 50%** through expanded sourcing, demand forecasting, and supplier coordination.
- Improved clinic margins by **7%** through rebate negotiations, GPO evaluation, and vendor scorecards.
- Lowered IV fluid transit damage by **80%** through collaboration on packaging redesign.

EDUCATION

Western Governors University — **BS Software Engineering**   *June 2025*

PROJECTS

CompoundIQ | *503B Regulatory Monitoring & Facility Intelligence*   *Python, Kedro, dbt, DuckDB/MotherDuck, Selenium*

- Built an end-to-end pipeline that snapshots the FDA 503B registration list weekly and models it into **facts/dimensions with SCD Type 2 history** to track registrations, deregistrations, inspections, and enforcement actions over time.
- Implemented deterministic entity resolution (**UUID5 hashing + aggressive normalization**) to create stable facility and parent-entity IDs despite inconsistent source formatting.
- Delivered decision-ready outputs: **change detection (new/dropped facilities)**, inspection timelines, post-inspection action tracking (e.g., untitled letters, FMD-145s, warning letters), and a curated current registration extract for procurement due diligence.

Data Doctor | *Privacy-First Spreadsheet Validation & Cleaning*   *Python, Streamlit, Pandas, openpyxl, YAML*

- Developed a **guided 5-step Streamlit workflow** that helps non-technical teams validate and remediate CSV/Excel data without accounts, databases, or uploads to third-party servers.
- Designed a modular validation engine supporting **11 column tests + dataset-level checks** (duplicate rows, cross-field rules) and remediation with configurable failure-handling (label, quarantine, drop, strict fail).
- Created **portable YAML data contracts** to persist rules and transformations for repeatable monthly validation, enabling sharing and version control in Git without user accounts.

MedSupplyPro | *Offline Android Medical Inventory App*   *Java, Android SDK, Room ORM, SQLite*

- Built a **privacy-first, offline** Android app for solo providers to catalog supplies, track shipments, manage locations, and report on usage and waste with **no logins, no cloud, no tracking**.
- Implemented a local relational data model using **Room (SQLite)** and a workflow aligned to real inventory operations (shipment intake → stock → consumption/waste).

SterileCalc | *Procurement Calculators for Sterile Drugs*   *HTML/CSS, JavaScript*

- Shipped a lightweight web tool that computes **dose costing, doses-per-unit, injection volume, and BUD countdown** to support new healthcare buyers making sterile purchasing decisions.
- Encoded operational rules reflecting **USP 797** vial-use constraints and **503A vs 503B** purchasing restrictions to prevent incorrect assumptions in cost-per-dose calculations.

California Sterile License Study | *Market Map + Searchable Directory Prototype*   *Python, Streamlit, Pandas, Plotly*

- Scraped and compiled California sterile compounding licenses, then enriched records via public web research to classify facility type, specialties, accreditations, and service capabilities.
- Delivered an interactive directory and analysis views (license mix, facility types, geographic distribution, expiration timelines) to support safer sourcing and market understanding.

CERTIFICATIONS

Back End Developer	Western Governors University	*Nov 2024*
Front End Developer	Western Governors University	*Aug 2024*
AWS Cloud Practitioner	Amazon Web Services	*Jul 2023*
ITIL Foundations	ITIL	*Mar 2023*
Project+	CompTIA	*Nov 2022*
Salesforce Administrator	Salesforce	*Apr 2022–2024*

SKILLS

Programming: SQL, Python (Pandas, NumPy, PuLP, OCR), JavaScript, Java, HTML/CSS
Data Eng & Cloud: BigQuery, DuckDB/MotherDuck, GCP, AWS, Dataform, dbt-core, Git, ELT/ETL, Web Scraping
Analytics & DS: Query optimization, BI (Tableau, Plotly Dash), Forecasting, Regression, EDA, Linear Programming
AI & Automation: Embeddings & Vector Search, Copilot Studio, Prompt Engineering, AI-assisted dev workflows, Automation
Healthcare Domain: 503A/503B, Sterile Drug Procurement, Tiered Pricing & Contract Optimization, Inventory, ERP P2P/OTC/Q2C, EHR workflows
Leadership: Requirements, cross-functional delivery, mentorship, PM (Project+, ITIL), Jira/Asana/Monday.com