

Nicholas J. Sumnicht

Senior Data Analyst | Data Visualization Specialist

Littleton, CO | (408) 528-4821 | nsumnicht@gmail.com | linkedin.com/in/nicholassumnicht

Professional Summary

Senior Data Analyst with 10+ years of experience in healthcare analytics, data validation, and visualization for federally funded programs. Proficient in Python, SQL, Tableau, Power BI, and Databricks, with hands-on experience building validation pipelines, verifying payment model indices, and designing complex interactive dashboards for clients including CMS and CMMI. Detail-oriented and methodical by nature, with a growing interest in the statistical methodology behind measure development.

Technical Skills

Visualization & Reporting: Power BI, Tableau, Excel

Programming & Analytics: Python (Pandas, NumPy, SciPy, Spark), SQL, Databricks

Healthcare & Analytics Domains: cost analysis, utilization analysis, payment model analytics, quality measurement, ACS & CMS data, data validation

Professional Skills: Stakeholder Communication, Cross-Functional Collaboration, Analytical Thinking, Requirements Gathering, Dashboard Design

Professional Experience

American Institute for Research (AIR) – Senior Research Analyst

Denver, CO (Remote) | 2021 – Present

- Led analytic workflows for **healthcare payment models**, migrating 30,000+ lines of SAS to Python/Databricks.
- Conducted **population-level cost and utilization analyses** on large administrative datasets to evaluate healthcare payment and policy initiatives.
- Verified the **Community Deprivation Index (CDI)** for a CMS-aligned payment model, validating multi-factor calculations impacting hospital reimbursement.
- Identified a critical **PCA weighting error**, preventing incorrect financial outputs from reaching production.
- Built automated **data quality and validation frameworks** ensuring accuracy and reproducibility across healthcare datasets.
- Designed and maintained **Tableau and Power BI dashboards** delivering performance metrics and cost trends to internal teams and external stakeholders.
- Managed the data visualization task for the Enhanced Medicaid Therapy Management Project (EMTM), delivering interactive dashboards reporting **50+ measures** used to audit health insurance companies.
- Oversaw participation of **15+ companies** in the Qualified Entity Certification Program (QECF) using Salesforce, providing expert guidance on achieving certification and accessing Medicare data.
- Developed verification code for **two TEAM performance measures**: a hospital-level outcomes measure tracking mortality rates, length of stay, and episode volume by hospital type and episode type; and a SNF-specific measure reporting mean, median, and percentile length-of-stay metrics for TEAM-participating hospitals.
- Built an end-to-end **RFA validation pipeline** for the IBH Model, encompassing technical specifications, validation code, and a full unit testing suite to ensure correctness and reproducibility.
- Designed executive-facing **at-a-glance metric visuals** for the QHP project, translating complex survey data into concise summaries for client leadership.
- Built a highly complex **Tableau dashboard for SFF 101** housing 50+ measures that dynamically drive an interactive map, with cascading table views featuring highlighting, radio button controls, and collapsible/dynamic view components.

- Serves as AIR's primary **SME on Data Visualization** best practices and methodology, training junior staff and guiding teams on impactful data storytelling.

IMPAQ International, LLC – Senior Research Analyst

Denver, CO (Remote) | 2020 – 2021

- Analyzed **CMS healthcare datasets** for performance measurement, utilization tracking, and program evaluation.
- Oversaw extraction of **100+ data tables** from CMS' Medicare Appeals System for primary analyses on the QIC Demonstration Evaluation Contract (QDEC), and trained 6 junior staff on navigating and extracting data using Cognos Reports.
- Used SQL to develop **quality measures** tracking CMS beneficiary care to identify potential health-condition-based discrimination.
- Developed **public-facing Tableau dashboards** on food accessibility, diabetes risk, and COVID-19 clinical trials.
- Built interactive Tableau and Power BI dashboards visualizing healthcare performance, utilization, and cost trends for program leadership.
- Led migration of reporting workflows from Tableau to Power BI, rebuilding data models and designing DAX measures.

IMPAQ International, LLC – Analyst / Research Analyst

Oakland, CA | 2016 – 2020

- Supported **healthcare program evaluation** through data validation, quality assurance, and performance reporting.
- Built Tableau dashboards tracking program activity, utilization trends, and KPIs for stakeholders.
- Managed a team of **3 QA testers** for the Quality Safety and Review System (QSRS), enabling hospitals to track and categorize adverse events using Agile methodologies and Jira.
- Developed interactive dashboards for the Center for Medicare and Medicaid Innovation (CMMI) reporting on **50+ measures across 7 dashboards** for data exploration and stakeholder reporting.
- Led client interactions and survey data operations, contributing to **multi-year contract renewals** through strong stakeholder management and delivery.

SurveillanceGrid Integration, Inc. – Systems Engineer

Morgan Hill, CA | 2015 – 2016

Education

B.A. Economics, Minor in Mathematics – Colorado State University, May 2015

Interests: Rock Climbing, Mountaineering, Skiing, Hiking, Charity