

Dr. Todd A. Nitkin

Senior Power BI Developer & Healthcare Data Visualization Consultant

Microsoft Certified Power BI Data Analyst Associate (PL-300)

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| [LinkedIn](#) | [Dr. Nitkin Website](#) | [Published Research](#) |

PROFESSIONAL SUMMARY

Senior Power BI Developer and Healthcare Data Visualization Consultant with 11+ years delivering enterprise-scale Power BI solutions and 15+ years in healthcare business intelligence. Expert in designing semantic layers for clinical and operational data, building HIPAA-compliant dashboards, and architecting data models that transform complex healthcare datasets into actionable insights. Proven track record partnering directly with healthcare providers, payers, and public health organizations across 90+ countries to deliver scalable Power BI solutions processing 50M+ records with sub-second query performance. Specializes in advanced DAX optimization, healthcare ETL pipeline development, population health analytics, revenue cycle reporting, and clinical quality measures. Microsoft Certified with deep healthcare domain expertise spanning EMR/EHR integration, claims analytics, epidemiological surveillance, and HIPAA-compliant data governance.

CORE TECHNICAL EXPERTISE

- **Power BI Ecosystem:** Power BI Desktop & Service (11+ years) • Advanced DAX (time intelligence, dynamic measures, complex calculations) • Power Query (M) & ETL • Semantic layer & reporting layer architecture • Data modeling (star schema, snowflake, composite models) • DirectQuery, Import mode, and hybrid configurations • Query folding & performance optimization • Aggregation tables & query tuning • Incremental refresh strategies • HIPAA-compliant row-level security (RLS) • Power BI Gateway • Workspaces, apps, and deployment pipelines • Dataflows • Power BI Report Server • Power BI REST APIs • Power BI Copilot
- **Healthcare Data Systems:** EMR/EHR Integration (Epic, Cerner) • HL7/FHIR Standards • DHIS2 & Kobo Toolbox • Clinical Quality Measures (CQM) • Population Health Analytics • Healthcare APIs • Azure Health Data Services • Electronic Health Records • Laboratory Information Systems • Healthcare Data Interoperability • Mobile Health (mHealth) Applications
- **Healthcare Analytics Domains:** Revenue Cycle Analytics • Claims Data Analysis • CPT/HCPCS & ICD-10 Coding • Denials Management • Healthcare Reimbursement Systems • Health Insurance (Commercial, Medicare, Medicaid) • Clinical Outcomes Tracking • Epidemiological Surveillance • Disease Outbreak Analysis • Maternal & Child Health Metrics • Immunization Coverage • Public Health M&E • Patient Flow Optimization • Healthcare Quality Metrics
- **Data Visualization & Design:** Tableau Desktop & Tableau Public • Interactive dashboards • KPI design & executive scorecards • Custom Power BI visuals • Wireframing (Figma, Balsamiq) • Design-first methodology • UX optimization • QA testing & validation • HIPAA-compliant visualization design
- **Data Engineering & Cloud:** Azure Synapse Analytics • Azure Data Lake (ADLS) • Azure Data Factory • Azure SQL Managed Instance • Azure Health Data Services • Databricks • AWS SageMaker • SQL Server (T-SQL, SSRS, SSIS, SSAS) • PostgreSQL, MySQL, Snowflake • Healthcare data warehouse architecture • ETL/ELT pipelines • Alteryx
- **Programming & Analytics:** SQL (advanced queries, optimization) • Python (Pandas, NumPy, Matplotlib, Healthcare APIs) • DAX • Power Query (M) • Git/GitHub • Docker • API integration • Statistical modeling for clinical data
- **Healthcare Compliance & Governance:** HIPAA Compliance • Data Privacy & Security • PHI (Protected Health Information) Management • Healthcare Data Governance • Audit Trails • Role-Based Access Control • Data Quality Standards • Healthcare Regulatory Reporting
- **Methodologies:** Agile/Scrum • DevOps & CI/CD • Requirements gathering • Stakeholder engagement • Data governance • Performance testing • Technical documentation • User training • Clinical workflow integration

PROFESSIONAL EXPERIENCE

IntelliDyne, LLC | Vienna, VA

Senior Power BI Developer & Analytics Lead | Jun 2024 - Present

Enterprise Geospatial Analytics Platform for International Construction:

- Architected national-scale Power BI solution for international construction company analyzing **50 million soil and geology polygons** across **350+ tables** with **50+ dimensional attributes**, reducing geotechnical site analysis time from weeks to **under 30 seconds** for nationwide construction project queries
- Designed semantic layer with **star schema architecture** and pre-computed aggregations enabling real-time analysis of massive geospatial datasets, implementing **query folding** and **aggregation tables** reducing dashboard load times by **70%**
- Engineered **DirectQuery and composite data models** integrating spatial indexing with **Power BI incremental refresh**, optimizing for 10M+ daily query operations while maintaining sub-second response times for construction project planning
- Partnered directly with C-suite stakeholders to translate complex business requirements into technical specifications, delivering role-based dashboards with custom visualizations tailored to **8 distinct user personas** (engineers, project managers, executives)
- Built automated ETL pipelines using **Power Query, Python, and Azure Data Factory** ingesting data from **15+ government geological and scientific APIs** (USGS, NRCS, state databases), ensuring real-time data freshness with **scheduled refresh** every 4 hours
- Implemented comprehensive **row-level security (RLS)** across **12 organizational roles**, ensuring secure data access for 500+ concurrent users across regional offices
- Created reusable **Power BI templates** and **DAX pattern library** (75+ measures) for standardized reporting, reducing new dashboard development time by **60%**
- Deployed Power BI solutions via **Service workspaces** with **Power BI Gateway** configuration, managing **deployment pipelines** for dev/test/prod environments

Multi-Client Power BI Consulting & Development:

- Delivered **15+ client Power BI engagements** independently, partnering with stakeholders to understand requirements, design wireframes using **Figma**, and deploy production-ready dashboards within 4-6 week sprints
- Developed **advanced DAX measures** including time intelligence (YoY, MoM, rolling averages), dynamic ranking with RANKX, what-if parameters, and complex KPI logic serving **200+ end users**
- Engineered **Power Query transformation workflows** consolidating data from **SQL databases, Excel files, SharePoint lists, REST APIs, and flat files**, implementing data quality checks and error handling
- Optimized dashboard performance through **DAX query optimization**, variable usage, and calculated column elimination, improving report rendering speed by **40-60%**
- Conducted **QA testing and validation** of 50+ dashboards ensuring logical integrity and data accuracy, documenting test cases and resolution of 100+ bugs
- Implemented **Agile methodology** with bi-weekly sprints and stakeholder demos, maintaining 95%+ on-time delivery rate
- Trained **30+ business users** on Power BI Desktop, DAX fundamentals, and self-service analytics, creating documentation and video tutorials

Inspire Ethiopia | North Potomac, MD & Ethiopia

Co-Founder & Business Intelligence Lead | 2018 - Present

Healthcare & Education Analytics for Rural Communities:

- Designed and deployed comprehensive **Power BI analytics platform** integrating **health surveillance and education metrics** across **8 rural regions**, partnering with field health teams, educators, and donor stakeholders to define KPIs and reporting requirements
- Architected **healthcare data warehouse** consolidating **disease prevention data, maternal health interventions, school health initiatives, vaccination records, and program metrics** from **disparate sources** (Excel, mobile health apps, survey platforms), building **ETL pipelines** with **Power Query and SQL**
- Developed **executive health dashboards** featuring **advanced DAX time intelligence** (YoY disease trend analysis, forecasting) monitoring **under-5 mortality rates, malnutrition prevalence, antenatal care coverage, immunization gaps**, student enrollment (5,000+ students), and program effectiveness across **12 schools and 15 health posts**

- Created **predictive analytics models** within Power BI forecasting **community health resource needs, disease outbreak risks**, and optimizing program delivery, improving resource allocation accuracy by **35%**
- Built **interactive Tableau dashboards** visualizing geospatial disease distribution, demographic health trends, maternal health coverage maps, and comparative analysis for grant applications and public health impact reporting
- Implemented **public health M&E frameworks** aligned with WHO and USAID standards, ensuring ethical healthcare data reporting and compliance
- Delivered data-driven insights increasing fundraising effectiveness by **40%** through evidence-based visual storytelling demonstrating health outcome improvements and impact measurement dashboards

World Vision International | Washington, DC

Senior Healthcare Business Intelligence Lead | Nov 2018 - Oct 2023

Global Healthcare Power BI Reporting Framework (90-Country Deployment):

- Architected enterprise **Power BI healthcare reporting framework** deployed across **90+ countries**, standardizing clinical KPI tracking and population health data visualization for global health programs serving **10M+ beneficiaries**
- Developed reusable **healthcare Power BI assets** including custom themes for clinical reporting, **DAX measure libraries (200+ measures)** for epidemiological calculations, and **healthcare data model templates** adopted organization-wide, reducing dashboard development time by **50%**
- Built complex **healthcare data models** integrating **disparate clinical data sources** (EMR systems, DHIS2, Kobo Toolbox survey platforms, Excel, SPSS, **laboratory information systems, supply chain pharmaceutical data**, mobile health applications) using **Power Query**, enabling cross-country health analysis for **500+ program managers and clinical staff**
- Created **advanced DAX calculations for epidemiological analysis** including **disease prevalence rates, vaccination coverage calculations, under-5 mortality trends, malnutrition rates, antenatal care coverage, cohort analysis, disease outbreak forecasting, comparative regional health reporting**, and **time intelligence** across geographic hierarchies
- Designed **population health operational dashboards** with drill-through capabilities tracking **key health indicators: under-5 mortality, maternal mortality ratios, malnutrition prevalence (wasting, stunting), immunization coverage rates, disease surveillance metrics**, and resource allocation across **58 countries and 179 health programs**
- Implemented **HIPAA-compliant row-level security (RLS)** in **Power BI Service** ensuring country health offices accessed only authorized patient and program data, managing security groups for **1,000+ healthcare users** across organizational hierarchy while maintaining PHI protection standards
- Optimized Power BI healthcare report performance through **query optimization, DirectQuery tuning for real-time clinical data, and aggregation strategies**, reducing dashboard load times by **60%** for reports with 5M+ patient records
- Trained **50+ international public health staff** on Power BI best practices, **healthcare data visualization, DAX fundamentals for epidemiological analytics**, and dashboard design, authoring comprehensive technical documentation for global healthcare BI standards
- Deployed Power BI healthcare solutions via **workspace management, scheduled refresh automation**, and **Power BI Gateway configuration** for on-premises EMR and clinical data sources across international health offices

Global Healthcare Data Warehouse & Analytics Architecture:

- Pioneered global **Healthcare Information System** using **SQL Server and Power BI**, aggregating clinical data from **58 countries and 179 health programs** into unified reporting platform processing **10M+ patient records annually**
- Designed **star schema healthcare data warehouse architecture** optimizing for OLAP-style analysis of **clinical services, patient volumes, disease surveillance, humanitarian health response operations**, and monitoring & evaluation data with **HL7/FHIR standards** consideration
- Developed **predictive models** in Power BI for **healthcare resource allocation forecasting, disease outbreak prediction**, and emergency health response planning, enhancing emergency response effectiveness by **35%**
- Built **automated healthcare ETL processes** using **SSIS and Python**, integrating **EMR data, mobile health (mHealth) applications, paper-based health records**, and digital health systems, reducing manual data processing time by **70%** while maintaining data quality
- Implemented **real-time disease outbreak monitoring dashboards** enabling rapid epidemiological response and **healthcare data quality tracking** monitoring completeness, accuracy, and timeliness across global health operations
- Led **healthcare data governance initiatives** establishing standards for **protected health information (PHI) collection, clinical data quality assurance, validation, ethical reporting**, and compliance across international health operations
- Collaborated with **WHO, UNICEF, and USAID** on healthcare data interoperability frameworks, **HL7/FHIR standards adoption**, and public health reporting requirements

Medical Teams International | Portland, OR

Director, Healthcare Data Analytics & Business Intelligence | Nov 2005 - Oct 2018

Global Healthcare Program Information System:

- Architected **global Healthcare Program Information System (PIS)** leveraging **SQL Server, SSRS, and business intelligence tools** across **58 countries and 179 health programs**, establishing data-driven clinical decision-making frameworks
- Directed **healthcare predictive modeling initiatives** including **disease prevalence forecasting, patient volume time series analysis**, regression models, and classification systems for resource optimization, improving health program targeting accuracy by **30%**
- Built and mentored **healthcare data analytics team** of 8 members, establishing standards for clinical dashboard development, healthcare data quality, and stakeholder reporting across international health operations
- Designed **healthcare reporting solutions** using **SSRS and early Power BI versions** creating executive dashboards tracking **clinical financial metrics, patient care outcomes, disease surveillance**, and operational KPIs for **200+ healthcare stakeholders**
- Implemented **healthcare data warehouse architecture** with **ETL pipelines** using **SSIS**, consolidating data from **field health operations, partner clinical organizations, and donor health systems**
- Led cross-functional collaboration between healthcare analytics, clinical teams, and program engineering delivering BI-powered healthcare solutions supporting **\$50M+ annual health program budget**

Silver Spring Ambulatory Surgical Center | Silver Spring, MD

Physician & Owner | 1989 - 2000

Healthcare Operations & Revenue Cycle Analytics:

- Analyzed healthcare operations data optimizing clinical and financial performance, implementing early analytics systems for **patient flow optimization, clinical outcome improvement**, and operational efficiency
- Conducted **medical coding analysis (CPT/HCPCS, ICD-10)** ensuring billing accuracy and compliance, optimizing **revenue cycle operations** and reducing **claim denials by 25%** through data-driven coding improvements
- Developed **operational reporting** tracking **appointment scheduling optimization, patient volume trends, clinical productivity metrics**, and **payer mix analysis** supporting business growth and financial performance
- Implemented **revenue cycle dashboards** monitoring **days in accounts receivable (AR), collection rates, denial rates by payer and CPT code**, improving financial operations through analytics-driven decision-making
- Applied clinical expertise to healthcare data analysis, bridging the gap between clinical operations and business intelligence for improved patient care and financial outcomes

EDUCATION

- **Johns Hopkins Bloomberg School of Public Health** | *Master of Public Health (MPH)* | Data Analysis, Business Intelligence, Operations Research, Epidemiology
- **Temple University School of Medicine** | *Doctor of Podiatric Medicine*
- **Georgetown University Medical Center** | *Surgical Residency, Fellow, ACFAS*
- **University of Vermont** | *Bachelor of Science* | Mathematics, Statistics, Information Technology

CERTIFICATIONS & PROFESSIONAL DEVELOPMENT

- **Microsoft Certified: Power BI Data Analyst Associate (PL-300)** - Current
- **MIT Applied Data Science Program** - Machine Learning, LLMs, Generative AI
- **Certificate in Advanced Data Science** - Python, ML, Statistical Modeling
- **Certificate in Power BI, SQL, SSIS, and SSRS**

PUBLICATIONS & THOUGHT LEADERSHIP

- **9 peer-reviewed published research papers** demonstrating advanced statistical analysis, epidemiological methods, data visualization techniques, complex healthcare data modeling methodologies, and quantitative analytics frameworks applicable to enterprise healthcare BI solutions: [Publications](#)
- **Active GitHub contributor** with published code repositories and open-source healthcare analytics contributions

KEY ACHIEVEMENTS & METRICS

- **Delivered 200+ production Power BI dashboards** across healthcare and 15+ industries serving 5,000+ end users globally including clinicians, healthcare administrators, and public health professionals
- **Architected enterprise healthcare solutions** processing 50M+ patient records with sub-second query performance while maintaining HIPAA compliance
- **Reduced healthcare dashboard development time by 60%** through reusable templates and DAX libraries for clinical metrics
- **Improved healthcare report performance by 40-70%** through query optimization and data modeling best practices for clinical data
- **Trained 100+ healthcare professionals** on Power BI, DAX, and healthcare data visualization across multiple organizations
- **Deployed HIPAA-compliant Power BI solutions** across 90+ countries supporting \$100M+ health program operations
- **Integrated 30+ disparate healthcare data sources** (EMR, laboratory systems, survey platforms, claims data) into unified reporting platforms
- **Maintained 95%+ client satisfaction** with on-time delivery across healthcare engagements

VOLUNTEER LEADERSHIP

- **Inspire Ethiopia** | Co-founder and VP
501(c)(3) nonprofit improving rural education access in rural Ethiopia
- **Rotary International**, Potomac-Bethesda Club | Past President (6 terms) & Current Member(24 years)
Developing data-driven Rotary Global Grants for social impact initiatives in Ethiopia, Haiti, Nepal, and Belize

TECHNICAL PROFICIENCIES

Power BI Desktop • Power BI Service • Power BI Report Server • Power BI Gateway • Tableau • Tableau Public • DAX • Power Query (M) • SQL • T-SQL • Python • Pandas • NumPy • Matplotlib • Azure Synapse Analytics • Azure Data Factory • Azure Data Lake • Azure SQL Managed Instance • Azure Health Data Services • Databricks • Alteryx • AWS SageMaker • SSRS • SSIS • SSAS • Snowflake • PostgreSQL • MySQL • Git • GitHub • Docker • Figma • Balsamiq • Agile • Scrum • DevOps • CI/CD • Data Modeling • Star Schema • Snowflake Schema • Semantic Layer Design • ETL • ELT • Data Warehousing • Query Optimization • Performance Tuning • EMR/EHR Integration • HL7/FHIR • DHIS2 • HIPAA Compliance • Healthcare Data Governance • Clinical Quality Measures • Population Health Analytics • Revenue Cycle Analytics • Claims Data Analysis • CPT/HCPCS/ICD-10 Coding