

Todd A. Nitkin

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Data Scientist | Python, PowerBI, and AI/ML

Results-driven Data Scientist with robust experience in Python, Power BI, SQL, and advanced AI/ML techniques including LLMs, PyTorch, and TensorFlow, SQL, SSIS, and SSRS. Vast experience with ML techniques, large data sets, and predictive modelling. Proven expertise in predictive analytics, geospatial modeling (ArcGIS), ETL pipelines, and business intelligence to solve complex problems across many different sectors. Adept in building end-to-end solutions — from data ingestion and modeling to interactive dashboards and stakeholder communication. Adept at presenting data to technical and non-technical stakeholders, ensuring clarity and strategic value. Known for driving innovation through generative AI, big data integration, and machine learning automation.

EXPERTISE

Core Skills & Technologies

- Programming: Advanced Python development, SQL, PyTorch, TensorFlow
- AI/ML: LLMs, XGBoost, LightGBM, NLP, Supervised/Unsupervised Learning
- Data Engineering: ETL, Data Cleansing, Data Warehousing
- Data Visualization: Power BI, ArcGIS, Dash, advanced interactive dashboard development
- Business Intelligence: Predictive Analytics, KPI Reporting
- Tools & Platforms: GitHub, Jupyter, SharePoint
- Program Management & Data-Driven Decision Making
- Data Cleansing, Preprocessing, and Modeling
- Integration with Python, SQL, SSRS, SSIS
- Expert presenter, with teaching experience at Johns Hopkins

Career Highlights, Experimental Design, A/B Testing

- ✓ **Leadership:** Established and led global data analytics teams, fostering a culture of data-driven decision-making and spearheading initiatives to enhance program effectiveness and impact assessment.
- ✓ **Innovation:** Pioneered Power BI implementation as a program information system, revolutionizing data aggregation and visualization processes across 58 countries, leading to enhanced decision-making capabilities.
- ✓ **Expertise:** Extensive experience in Python, Power BI, SQL, ML, AI, predictive modelling and data science to drive innovative data solutions for commercial business, public health, and healthcare sectors.

PROFESSIONAL EXPERIENCE

Data Scientist

IntelliDyne, LLC – Vienna, VA | June 2024 – Present

- Python expert leading python development of tools for analysis of large, diverse data sets.
- PowerBI expert for data visualization for business intelligence and tools.
- Utilize large language models (LLMs) and machine learning algorithms (e.g., XGBoost, LightGBM) for predictive analytics and exploratory data analysis.
- Build Flask applications and Jupyter workflows to streamline internal reporting pipelines. Integrate GIS, ArcGIS, and Power BI to visualize geological and environmental data in accessible formats.
- Build dynamic dashboards and Python pipelines to manage and visualize large datasets.
- Apply LLM-powered solutions for automating data interpretation and reporting, creating meaningful automated narratives from aggregated data.
- Conduct advanced ETL, data cleansing, and statistical analysis across multiple data sources.
- Perform customer Segmentation & Lifecycle Analytics.
- Collaborate with cross-functional teams to develop data-driven insights supporting lifecycle analytics and customer segmentation strategies.

- Collaborate with end-users to enhance the usability of tools, integrating GIS/mapping data into workflows.
- Contributed to experimental design and pilot evaluations, including A/B testing frameworks for exploratory business initiatives.
- Present findings to multiple audiences of different interests and capacities.

Data Scientist, Co-founder

Inspire Ethiopia – North Potomac, MD | 2018 – Present

Co-founder and data analytics lead of Inspire Ethiopia, dedicated to improving access to quality education in rural Ethiopia. Responsible for strategic data analysis and Business Intelligence with Python, PowerBI and other platforms.

- Develop ETL processes and dashboards using Python, SQL, and Power BI.
- Leverage analytics to support fundraising and strategic planning.
- Conduct program evaluations with automated reporting tools and SharePoint integration.
- Present analytical findings through BI dashboards, reports, Excel and PowerPoint to various stakeholders.
- Lead initiatives related to Monitoring, Evaluation, and Analysis, driving the integration of Python and Power BI solutions into public health programming.

Senior Advisor Data Analytics

World Vision International – Washington, DC | Nov 2018 – Oct 2023

Managed analytics for global public health initiatives. Integrated Python, SQL, and Power BI to drive actionable M&E insights. Built interactive dashboards and authored automated scripts to optimize reporting.

- Spearheaded Python and Power BI development and analysis, driving data analytics and science initiatives to derive actionable insights.
- Orchestrated comprehensive data collection and analysis, leveraging Power BI, Python, and others for efficient ETL processes and impactful data display.
- Emphasized the integration of Power BI with Excel, SPSS, Kobo Toolbox, and Epi Info to elevate business intelligence and data analysis proficiency. Designed and deployed comprehensive BI solutions, such as OLAP cubes.
- Utilized Python and Power BI to author research materials, leveraging its data visualization capabilities to generate insightful displays that informed decision-making and optimized program strategies through increased business intelligence.
- Presented analytical findings through BI dashboards, reports, and tools like Excel and PowerPoint to various stakeholders including the Board of Directors.
- Designed and executed analytic strategies, including quality improvement and research, to address complex health and healthcare delivery problems.

Director, Data Analyst

Medical Teams International – Portland, OR | Nov 2005 – Oct 2018

Leveraged Power BI and Python to develop a Program Information System (PIS) for global data aggregation, enabling streamlined analysis and visualization of data from diverse sources on a worldwide scale, used across 58 countries with 179 different programs, improving results and optimizing resources.

- Led predictive modeling projects for healthcare and humanitarian response.
- Integrated Python and Power BI to facilitate data tracking and analysis, driving informed decision-making and strategic planning.
- Leveraged analytical insights to optimize business intelligence practices and enhance program effectiveness.
- Optimized data capture, analysis, and presentation procedures utilizing Power BI's advanced features, ensuring efficient and impactful business intelligence outcomes across M&E operations.

Physician / Owner

Silver Spring Ambulatory Surgical Center – Silver Spring, MD | 1989 – 2000

11 years of experience with submitting, understanding and analyzing claims data, healthcare data analytics, and leveraging analytics to increase operational efficiency, clinical excellence, and business growth.

- Applied early healthcare analytics and IT tools to support targeted advertising and improve clinical outcomes.
- Managed insurance compliance, data workflows, and quality reporting.

EDUCATION

Master of Public Health (MPH), Data Analysis and Visualization, Business Intelligence, Operations Research

Johns Hopkins Bloomberg School of Public Health | Baltimore, MD

Bachelor of Science (BS), Mathematics, Statistics, IT

University of Vermont | Burlington, VT

Physician (DPM), Fellow, American College of Foot and Ankle Surgery (FACFAS)

Temple Medical School and Georgetown Surgical Residency | Philadelphia and Washington, DC

PROFESSIONAL DEVELOPMENT

MIT Professional Education – Applied Data Science Program

- Certificate in Advanced Data Science: Python, ML, Generative AI, LLM, and Statistical Modeling.

Targeted Technology Training

- Certificate in Power BI, SQL, SSIS, and SSRS

PUBLICATIONS AND RESEARCH

Please see 9 of my published articles at: <https://github.com/tnitkin/published-research>

For each of the research projects listed in GitHub, I was responsible for:

- Designing the study, sampling frame, indicators, and questionnaires
- Planning the methodology, sample sizes, and data collection protocols
- Building KOBO Toolbox forms and training data collection teams
- Data cleaning, analysis (Python, STATA, Power BI), and reporting
- Publishing results and creating all data visualizations and dashboards

My published guide, 'LQAS Guide to Parallel Sampling', is now considered the global industry standard, widely adopted by major INGOs. I am recognized as a global expert in this quantitative methodology.

VOLUNTEER EXPERIENCE

- Co-founder and VP of Inspire Ethiopia (see in the Professional Experience section, above)
- Past President (six terms) and Present Member of Rotary International, Potomac-Bethesda Club | 2003 – present
 - Develop and Implemented Rotary Global Grants:
 - Inspire Ethiopia, Creating access to education in rural Ethiopia
 - Believe and Belize, providing for community needs in Belize
 - Joshua House, helping to establish a school and orphanage in Addis Ababa, Ethiopia
 - Facilitated local projects
 - Serve dinners at Sophia House shelter for women
 - Pack food for distribution and Mana Food
 - Provide scholarships to Montgomery College