# Resume

Dr. Todd A. Nitkin

(301) 412-9933| https://tnitkin.github.io/| North Potomac, MD | website:

Data Science and MERL | Python, ML, AI, PowerBI, Operations Research

Results-driven Data Scientist and Leader in MERL with over 20 years of experience with data product management and analysis, predictive analytics, healthcare claims data, and AI/ML deployment. Expert in Python, SQL, Power BI, and statistical modeling including regression, decision trees, clustering, and time series analysis. Skilled in developing scalable ML solutions using sklearn, PyTorch, TensorFlow, and NLP with LLMs. Experience with healthcare platforms including EPIC and insurance claims workflows. Adept in end-to-end ML Ops: data ingestion, preprocessing, feature stores, model training, containerized deployment, and monitoring in production. Strong record of applying generative AI and Accelerated techniques to automate reporting and drive real-time insights.

EXPERTISE

• Experience training LLMs on structured/unstructured data; Spark, Azure Databricks, GraphDB integration • 10+ years leading ML and AI projects, including mentoring junior staff and applying evaluation metrics • Big Data pipeline experience with PySpark, cloud deployments (Azure, AWS), and SQL/NoSQL storage • Demonstrated use of version control (Git), containerization (Docker), and advanced statistical modeling

Core Skills & Technologies

Methodologies: Experienced in Agile/Scrum and similar systems for managing complex deliverables

Healthcare IT: 3+ years’ experience with strong understanding of industry practices

Programming: Advanced Python development, SQL, PyTorch, TensorFlow, scikit-learn, Keras

AI/ML: LLMs, XGBoost, LightGBM, NLP (BERT, SpaCy), supervised/ unsupervised learning, data pipelines, feature stores, model training/ deployment, Docker, Linux

Data product management and analysis, including Python, Flask, and Power BI for product management

Statistical Modeling: Regression, decision trees, clustering, time series, propensity modeling

Revenue Cycle Management, Claims Analysis, CPT/HCPCS & ICD-10 Coding, Denials Management, Healthcare Reimbursement Systems

Data Visualization: Power BI, ArcGIS, Dash, advanced interactive dashboard development

Business Intelligence: Predictive Analytics, KPI Reporting

Tools & Platforms: GitHub, Jupyter, SharePoint

AI/Gen AI: LLMs, NLP, automated narrative generation, generative tools

Cloud/Data: Azure, AWS, Postgres, Redshift, Snowflake, MySQL, NoSQL

Integration with Python, SQL, SSRS, SSIS

Containers: Docker, Linux, GPU acceleration techniques

Expert presenter, with teaching experience at Johns Hopkins

Certifications: MIT Applied Data Science (ML, LLMs, GenAI), Power BI, SQL

Statistical Modeling Focus

I have deep experience applying a wide range of statistical and MLOps techniques to business, healthcare, and public health challenges. My strongest areas include Linear and Logistic Regression, Decision Trees and Random Forests, K-Means Clustering, Propensity Modeling, Time Series Forecasting, and Neural Networks for structured data and NLP tasks.

I have implemented these models using Python frameworks such as scikit-learn, XGBoost, LightGBM, and TensorFlow. Deployed in production using containerization (Docker), GPU acceleration, and cloud monitoring tools, these analytics have directly supported delivery optimization, claims analysis, and automated report generation using NLP pipelines.

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 and creating custom web applications for large clients.

PowerBI expert for data visualization for business intelligence and tools.

Python and Flask-based development for internal analytics tools and a report accelerator, directly managing product requirements, technical development, and delivery timelines for soil and geology analytics products.

Utilize large language models (LLMs) and machine learning algorithms (e.g., XGBoost, LightGBM) for predictive analytics and exploratory data analysis.

Implemented ML Ops pipelines for client projects, including data ingestion, feature stores, model retraining schedules, and dashboard-based monitoring of deployed models.

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 solutions for automating data interpretation and reporting, using NLP to create narratives from data.

Conduct advanced ETL, data cleansing, and statistical analysis across multiple data sources.

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. Integrated revenue cycle analytics and healthcare reimbursement insights into global public health programs. Developed dashboards and reporting tools for tracking denials, insurance claims, and clinical service costs.

Spearheaded Python and Power BI development and analysis, driving data analytics and science initiatives to derive actionable insights.

Led analytics design for global health data products including dashboards, KPI reports, and reusable PowerBI assets, serving 90+ countries.

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

Designed and executed analytic strategies 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.

Designed a global Program Information System, overseeing end-to-end development of reporting products and data pipelines to support programmatic and executive decision-making.

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 PowerBI'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. Led all aspects of revenue cycle management including claims submission, medical coding (CPT/HCPCS), reimbursement analysis, and compliance. Oversaw billing workflows and financial operations for 11 years, directly optimizing clinical and operational outcomes.

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: | Lecturer at Johns Hopkins Bloomberg School of Public Health

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 (using Python and 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

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