Geoff Perrin

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WORK EXPERIENCE

NYCSBUS (Contract) • 01/2026 - Present   New York, NY

Senior Data Scientist - Applied AI & Analytics Systems
- Designing and deploying a natural-language analytics interface enabling non-technical users to query complex relational datasets using LLMs, expanding self-serve access to insights without requiring SQL
- Building a secure query orchestration layer translating user intent into validated, auditable database queries, working cross-functionally to prioritize high-impact analytical use cases and reduce analyst bottlenecks

City of Guadalajara (Contract) • 06/2024 - Present   New York, NY / Guadalajara, MX

Senior Data Scientist
- Leading a data-driven audit and improvement of Guadalajara's transparency portal to assess open-data quality, legal compliance, and anti-corruption impact, with the goal to increase citizen trust and engagement by Fall 2026
- Identified systemic gaps in municipal transparency datasets and delivered actionable recommendations to strengthen data integrity and public accountability

City of Detroit (Contract) • 08/2017 - Present   New York, NY / Detroit, MI

Senior Data Scientist
- Built an ML model predicting occupancy for the City of Detroit which allowed the city to focus efforts on mitigating the foreclosure crisis and the 100k parcels under city control - model and program were valued at over $8.5M in public benefits and heavily championed by Mayor Mike Duggan
- Created and led GIS mapping project for the Department of Neighborhoods Block Club program - project helped facilitate outreach and better target allocation of $2M in public benefits for block clubs and neighborhood improvement projects
- Led geospatial analysis for the Mayor's Office in support of citizen engagement efforts for Covid vaccination participation, voter participation, and census participation - analysis and occupancy model were heavily used in the 2022 federal lawsuit challenging the 2021 US Census population estimate for the city

Nelo • 07/2024 - 10/2025   New York, NY / CDMX, MX

Senior Data Scientist
- Designed and led experimentation frameworks to identify drivers of repayment behavior and user retention, directly shaping underwriting and product decisions
- Built and validated causal inference and uplift models using Python to uncover high-impact levers of credit quality and profitability, driving >$1.2M in annual financial improvements
- Partnered with product and engineering stakeholders to translate open-ended questions into measurable experiments and robust causal models
- Improved model latency by 90% through feature optimization and reduced overfitting, enabling wider deployment of experiments across customer segments

Urbint • 05/2021 - 07/2024   New York, NY

Senior Data Scientist
- Built the main GIS risk model measuring the impact of damages of underground utility assets - model became a centerpiece product for the business
- Met with utility clients 'in the field' to both provide insights internally and back to the clients, as well as continuing to build ML models and perform R&D for model improvements - helped secure $5M in ARR in renewals
- Built out POC ML models for one of the continent's largest energy companies to secure $1M ARR deal
- Designed and implemented a spatial analysis combining GIS data, and predictive modeling to assess infrastructure risk across a utility's high-voltage network
- Developed ETL pipelines and performed MLOps work to ensure up-to-date, high quality data that makes both the model builds and analysis quick to produce and implement, reducing the end to end time up to 90%
- Presented at GESC Conference on ML work to showcase Urbint and the data team as thought leaders in the industry

Machine Learning Engineer
- Writing production code / building ML models with a focus on energy utilities and their gas assets - extremely collaborative (agile) process, saving lives and utility companies millions of dollars due to significant reduction in number of incidents / gas

explosions

Ford Motor Company • 04/2018 - 03/2020   Detroit, MI
Data Scientist
- AV / Smart Cities research - Provided data science expertise to support Ford Smart Mobility products and programs, such as an accessibility tool to support AV initiatives, as well as year long engagements with depts. of transport in Mexico City, Miami, Pittsburgh, and Detroit.

NYU Center for Urban Science & Progress • 11/2016 - 07/2017   New York, NY
Graduate Research Assistant
- Improved the granularity of predicting household waste generation for the Department of Sanitation New York (DSNY) by building a neural network model with an R-squared nearing 0.87.
- Improved NYPD's ability to predict the propensity for a neighborhood to report a shooting incident by building a random forest classification model.

EDUCATION
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New York University

M.S. in Data Science / Urban Informatics

University of Michigan

B.S. in Economics, Mathematics, German

TECHNICAL SKILLS
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- Languages: Python, SQL, English, Spanish
- Tools: AWS, GCS, Airflow, Git, QGIS, ArcGIS
- ML: scikit-learn, XGBoost, Keras, transformers, geopandas
- Specialties: Causal inference, experimentation, personalization modeling, uplift modeling, geospatial analytics

PERSONAL PROJECTS
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Masters Capstone:
Measuring Infrastructure Quality
in NYC Through Remote Sensing • 04/2017 - 07/2017   New York, NY
- Collected infrastructure data through images and accelerometer data captured through cell phones - processed and analyzed the data using a combination of machine learning techniques and classic computer vision algorithms
- I was the 'Pitchman' at NYU's 'Pitch Day', presenting our work to a panel of judges that included faculty and local tech leaders - we won third place in the competition

HOBBIES AND ACTIVITIES
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Riseboro Spanish-Speaking "Friendly Visitor" Volunteer • 09/2021 - Present   New York, NY
- I make weekly visits & phone-calls to two older Brooklyn residents - we play harmonica, talk baseball, trade jokes, and I try to win at dominos