Geoffrey T. Perrin
geoffperrin@gmail.com
geoffperrin.com
(734) 674-5481

Data scientist focused on using a combination of machine learning, geospatial analysis, data viz, and statistics to try to solve our most intractable problems.

EXPERIENCE:

Urbint   New York City, NY
Machine Learning Engineer / Spatial Solutions Engineer / Senior Insights Analyst   March 2020 – Present
-Writing production code / building ML models with a focus on energy utilities and their gas assets; collaborative (agile) process, saving lives and utility companies millions of dollars due to significant reduction in number of damages / explosions, on average 10-30 times above the baseline (random guess). XGBoost model trained on 1-5 million rows of data for each model. Presented our ML approach at the 2022 Global Excavation Safety Conference.
-Have met with 10+ clients in the 'field' (performing interventions on excavators) to both provide insights and explain model insights to client, as well as give feedback to ML team for feature engineering, business context

Bloomberg Associates / City of Detroit   New York City, NY
Data Scientist   October 2021 – Present
-Developing statistical models and data vizes and presenting results to support major initiatives of the Mayor of Detroit, the Departments of Innovation and Technology, Planning, Neighborhoods, and the Office of Mobility Innovation. Models involve utilizing geospatial interpolation techniques, demographics data, and data collected by the city to come up with a novel way of measuring "civic participation" and how current city outreach / expenditure relates to that.

Ford Motor Company, Smart Mobility   Detroit, MI
Data Scientist   April 2018 – March 2020
-Built analytics algorithms, tools, APIs, and consulting expertise to support Ford Smart Mobility products and programs, such as an accessibility tool to support Spin Scooters, AV initiatives, and consulting projects with depts. of transportation in Mexico City, Miami, Pittsburgh, and Detroit.

Bloomberg Associates   New York City, NY
Data Scientist   August 2017 – April 2018
-Built the city of Bogotá an NLP model and dashboards examining citizen complaint data - presented results in Spanish in Bogotá, and English at Bloomberg's D4GX Conference. Helped the city better understand and respond to complaints lodged by Bogotanos - the city was able to redistribute resourcing and reduced response time to a significant degree.

MacArthur Civic Analytics Fellowship, NYU   New York City, NY
Graduate Student Fellow   September 2016 – August 2017
-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.
-Capstone project aimed at reducing city costs by 95% in assessing street quality. Accomplished through computer vision, crowd sourced data collection, and cloud computing.

Detroit Land Bank Authority   Detroit, MI
Data Scientist, Bloomberg Fellow   July 2016 – May 2017
-Reduced foreclosed home pipeline sorting time by 95% by building random forest classification model, which predicts whether or not a home is occupied, with a ≈0.9 AUC score.

Levi Strauss & Co.   San Francisco, CA
Business Analyst   July 2013 - July 2016
-Saved LS&Co. $5 million thru time series forecasting models to measure stock-outs - published dashboards and presented results to the President of Levi's, planning teams, and merchandising teams.

EDUCATION:
New York University, M.S. in Applied Urban Science and Informatics
University of Michigan, B.S. in Economics, Mathematics, German

SKILLS:
Languages (in order of proficiency): English, Spanish, German
Technical: Machine Learning; git; thinking about equity; Random Forest Regression / Classification; Neural Networks, CNN, and RNN; Image Processing / CV; Geospatial Analysis; Time Series Analysis; NLP; Big Data; AWS.