

## Geoffrey T. Perrin

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### SUMMARY:

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I'm an experienced data scientist and a recent recipient of a master's degree at NYU focusing on using machine learning to solve urban problems.

**Specialties:** Machine Learning; Random Forest Regression and Classification; Neural Networks / Deep Learning; Image Processing; Computer Vision; Spatial Analysis; Crowd Sourced Data Collection; Cloud Computation; Time Series Analysis; Fourier Transformations.

### TECHNICAL SKILLS:

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**Programing Languages:** R, Python, SAS, Stata, SQL

**Programing Tools:** Pandas, GeoPandas, Jupyter, Tableau, ArcGIS, Alteryx, Amazon EC2, Amazon RDS for PostgreSQL, Computer Vision (OpenCV), Deep Learning (TensorFlow, Keras)

### EXPERIENCE:

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- **Bloomberg Associates** New York City, NY  
*Data Scientist* August 2017 – Present
  - Built Tableau dashboards for the city of Bogotá Oversight Department, greatly increasing their ability to respond to citizen complaints. Presented results in Spanish in Bogotá, and in English at Bloomberg's D4GX Conference. Next iteration will involve classifying complaints by utilizing NLP.
  - Provided technical assistance to the Mayor's Office of Paris in building a similar KPI dashboard.
- **NYU Center for Urban Science and Progress** New York City, NY  
*Graduate Student / Graduate Research Assistant MacArthur 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.
  - Improved NYPD's ability to predict the propensity for a neighborhood to report a shooting incident by building a random forest classification model.
  - Capstone project reduces city costs by 95% in assessing bike lane quality. Accomplished through computer vision algorithms, crowd sourced data collection, and cloud computing.
- **Detroit Land Bank Authority** Detroit, MI  
*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 an AUC score of 0.99.
  - Reduced decision making time in whether or not a Detroit Land Bank owned property should be demolished by 90% by building random forest classification model, with 96% accuracy.
- **Levi Strauss & Co.** San Francisco, CA  
*Senior Analyst* July 2013 – July 2016
  - Saved LS&Co. \$5 million as measured by sales not lost due to stockouts by building ARIMA time series forecasting models and presenting results through Tableau dashboards.
- **Acumen** San Francisco, CA  
*Quantitative Analyst II* January 2012 – July 2013
  - Reduced the time taken in bringing cases to court by DOJ lawyers by 50% by building a logit classifier model detecting providers committing Medicare fraud.

### EDUCATION:

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- **Masters of Science in Urban Informatics** August 2017  
New York University – New York, NY
- **Bachelor of Science in Economics, Financial Mathematics** May 2009  
University of Michigan – Ann Arbor, MI