Geoffrey T. Perrin

Github: github.com/gperrin12 | geoffperrin@gmail.com | 734.674.5481 | New York City, NY

SUMMARY:

I'm an experienced data scientist finishing up 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; Computer Vision; Spatial Analysis; Crowd Sourced Data Collection; Cloud Computation; Time Series Analysis; Fourier Transformations.

TECHNICAL SKILLS:

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 (Keras)

EXPERIENCE:

- **NYU Center for Urban Science and Progress** New York City, NY
  Graduate Student September 2016 – Present
  - Capstone project reduces municipalities' departments of transportation costs by 95% in assessing bike lane quality, while time savings run into the thousands of hours. Accomplished through computer vision algorithms, crowd sourced data collection, and cloud computing.

- **NYU Center for Urban Science and Progress** New York City, NY
  Graduate Research Assistant MacArthur Fellow November 2016 – Present
  - 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.

- **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:

- **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