Geoffrey T. Perrin

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SUMMARY:

Data scientist focusing on using machine learning, geospatial analysis, data viz, and data science to solve urban problems.

Specialties: Machine Learning; Random Forest Regression and Classification; Neural Networks / DNN, CNN, and RNN; Image Processing; Computer Vision; Spatial Analysis; Crowd Sourced Data Collection; Cloud Computation; Time Series Analysis; Fourier Transformations; Natural Language Processing; Sentiment Analysis; Big Data / Distributed Computing.

TECHNICAL SKILLS:

Languages: Spanish, German
Programing Languages: R, Python, SAS, Stata, SQL
Programing Tools: Pandas, GeoPandas, NumPy, NLTK, TextBlob, Jupyter, Tableau, ArcGIS, Alteryx, Amazon EC2, Amazon RDS for PostgreSQL, Computer Vision (OpenCV), Deep Learning (TensorFlow, Keras), PySpark

EXPERIENCE:

- **Urbint** — New York City, NY
  Spatial Solutions Engineer — March 2020 – Present
  - Prototyping and building software to make predictions and assign risk scores to events for utility companies through geospatial analysis and machine learning
- **Ford Motor Company, Smart Mobility** — Detroit, MI
  Data Scientist — April 2018 – March 2020
  - Building/providing 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 the City:One Challenges in Mexico City, Miami, Pittsburgh, Austin, and Detroit.
- **Bloomberg Associates** — New York City, NY
  Data Scientist — August 2017 – April 2018
  - Built the city of Bogotá dashboards visualizing citizen complaint data - presented results in Spanish in Bogotá, and English at Bloomberg's D4GX Conference.
  - Using NLP and sentiment analysis to improve classification of complaint data for Bogotá.
- **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.
  - 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 a ≈0.9 AUC score.
- **Levi Strauss & Co.** — San Francisco, CA
  Senior Analyst — July 2013 – July 2016
  - Saved LS&Co. $5 million due to stockouts through custom built forecasting models in R

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