

Miguel Rivera-Lanas

Data scientist with 3 years of experience in the asset management industry, looking to pivot into a data engineer or data scientist role. Hoping to work with a team of data scientists and engineers focused on products and solutions emphasizing differentiated approaches to employing big data and machine learning.

EXPERIENCE

Data Scientist — Point72, New York City, NY
September 2019 - Present

- Research applications and best practices for data science and engineering. Apply large scale/alternative data using ETL processes and statistical methods to improve the equity investment process.
- Use **Pyspark** to analyze unstructured columnar data, like credit-card transactions and website clickstream datasets. Use **SpaCy** for document pre-processing and information extraction from streaming text data.
- Use **Airflow**, **Jinja** and **AWS S3/SQS/Lambda** to build and maintain data pipelines, and **Dash** to create web based dashboards for end users.

Research Associate — AllianceBernstein, New York City, NY
June 2016 - August 2016 (Summer Internship), June 2017 - August 2019

- Monthly projects focused on tracking fiscal deficits, debt balances, and trade balances for emerging market countries issuing sovereign debt. Automated ingestion and high level analysis using **R Markdown**.
- Maintained output and delivered monthly updates from GAM model (**R**, **mgcv**) used for explaining bond price dispersion.
- Developed and maintained ETL using **MySQL** for extracting liquidity signals from live order-book data and developed **Jupyter Notebook dashboards** utilized by traders.
- Wrote a pipeline using **MySQL** and **BeautifulSoup** to web-scrape and analyze online resources for GHG emissions data from municipal utilities for an environmental scorecard used by ESG impact analysis.

Research Assistant — Wharton Management Dep., Philadelphia, PA
September 2015 - May 2016

- Researched upstream transnational energy infrastructure projects as part of a long term study focusing on project management best-practices. Focused on effects of macroeconomic events and operational decisions.

EDUCATION

University of Pennsylvania, Philadelphia, PA — *B.A., Cum Laude*
August 2013 - May 2017

Major: Economics, **Minors(s):** Statistics, International Relations

Extracurriculars:

- **Check One: Board Member.** Student organization providing a space for discussions about personal and societal experiences about race and mixed-heritage backgrounds.
- **Penn Journal of Economics: Editorial Committee.** (PJE) is a semi-annual, peer-reviewed publication of honors theses and other academic projects for undergraduates and faculty.

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CORE COMPETENCIES

Scripting Languages: Python, R, Scala, SQL

Development Tools: Git, Airflow, Bash, Jinja

Big Data: Spark (Scala/PySpark), DBT, AWS (EC2, Lambda, S3, Athena, SQS)

Databases: MySQL, PostgreSQL, MongoDB, Redis, Hive

ML: Sklearn, SpaCy, Tensorflow

Visualization/Web: Dash, Flask, BeautifulSoup

INTERESTS

Philosophy, Political Documentaries, Programming, Probability/Statistics, Distributed Computing, and Machine Learning

PERSONAL PROJECTS

(rivera-lanasm.com):

- **Kaggle, NLP: Quora Sincere Question Classification**

- Tested transfer learning and word embedding techniques, and various model architectures and tuning methods in **TensorFlow** to detect “insincere” questions on Quora.

- **538 Riddler Solutions:**

-Logic and math puzzles solved with analytical and simulation/probabilistic methods. Solutions coded primarily in **Scala**.

LANGUAGES

English (Fluent)

Spanish (Fluent)

- Language accreditation from Escuela Argentina of Washington D.C.

French (Working Proficiency)

- 2012 VA Governor’s School-French Language Immersion Program