# Daniel Alvarez

917-554-6835 (M) | Github account handle: dalvarez83 | alvarez.da@gmail.com


## EDUCATION

**Master of Information and Data Science**, University of California-Berkeley Expected Sept 2020

**Master of Public Administration** (MPA), Columbia University, New York, NY May 2009

- Concentration: Advanced Policy and Economic Analysis
- Teacher Assistantship Scholarship: Public Management course

**B.A in Economics and International Relations**, Brown University, Providence, RI May 2005

## TECHNICAL & LANGUAGE SKILLS

- **Computer Skills**: SAS, Stata, R, Python, Sci-kit Learn, Numpy, Pandas, Java, Tableau, Visual Basic, HTML, Workiva WDesk, Oracle Essbase, Oracle Hyperion Enterprise, Microsoft Office Applications
- **Language Skills**: Fluent in Spanish (Superior) and Portuguese (Advanced)

## DATA SCIENCE COURSES AND CERTIFICATIONS:

- Machine Learning Foundations: A Case Study Approach by University of Washington on Coursera (September 2017)
- Data Science certificate – General Assembly, New York (December 2016)
- Business Analytics Micro Masters: Analytics in Python by Columbia University on EdX (January 2018)
- Introduction to Computational Thinking and Data Science by MIT on EdX (expected April 2018)
- Introduction to Programming Using Java by Johns Hopkins University, Whiting School of Engineering (2018)

## DATA SCIENCE PROJECTS

- Generating calendars (monthly and annual) as defined by user using Java (February 2018)
- Trends and forecasts of carbon emissions from electricity generation sources using ARIMA techniques using Python (December 2016)
- Application of classification models to determine college admissions using Python (October 2016)
- Application of propensity score modeling to estimate impacts of electrification in Tanzania using Stata (2009)

## PROFESSIONAL EXPERIENCE

United Services Automobile Association (USAA), New York, NY January 2015-Present

**Senior Quantitative Risk Analyst**, Bank and Enterprise Stress-testing

- Evaluate forecasting models for Bank and Enterprise Stress-testing in conjunction with Model Risk Management
- Lead with teams to improve data quality process and model development efforts across the enterprise
- Produce and presented macroeconomic variable assumption values for stress scenario implementation in SAS
- Develop stress-testing data repository derived from internal and external sources
- Construct datasets and devise analytical strategy to compare USAA's stress-testing results to competing firms
- Lead data strategy initiatives for Bank Dodd-Frank Act Stress Testing, including engagement with external vendors
- Lead Reverse Stress Testing efforts and quantify scenario impacts in R
- Estimate impacts of power outage of all USAA systems on key enterprise business lines
- Lead hiring efforts of risk analysts

Federal Reserve Bank of New York (FRBNY), New York, NY
**Risk Analytics Associate** June 2013-January 2015

- Performed analytical assessments and develop quantitative techniques and modeling frameworks to support risk management efforts to assess market risk and identify gaps in proposed processes.
- Applied quantitative approaches to draw conclusions and make recommendations to key stakeholders, including the Controllers Group, Internal Audit and the CRO.
- Performed independent price verification and valuation of collateral held at the Discount Window and assets held in the Federal Reserve's securities portfolios; present findings to Federal Reserve System-wide committees
- Manipulated large datasets using statistic packages and automation tools (i.e. SAS, Stata, VBA, R)
- Performed MBS price analysis of securities held in the System Open Market Account (SOMA) and communicate findings to Finance Controllers

**Bank Examiner/Analyst** July 2009-June 2013

- Led Supervisory Modeling Team (SMT) effort in producing counterparty credit risk loss estimates - CVA and Incremental Default Risk for the CCAR exercise
- Analyzed counterparty credit risk data from large financial institutions to evaluate firms' CVA estimation
- Wrote briefing papers documenting loss estimate results and issues on firm data quality as part of the CCAR exercise
- Presented recommendations for Matters Requiring Attention (MRAs) to risk specialists and management at regulated firms
- Estimated probability of default for the largest counterparty exposures for large financial institutions
- Performed time series analysis on daily and weekly data provided by large financial institutions on large counterparty credit and funding exposures (using statistical packages)
- Performed fixed effects modeling to assess counterparty collateral management of regulated firms

**Cornerstone Research**, Boston, MA Fall 2005-June 2007
Analyst, Economics litigation consulting firm

- Developed cash flow model for generation of financial damages claims in real estate finance case
- Manipulated and analyzed complex data sets in SAS, Stata and MS Office applications
- Supplied rigorous research for leading industry experts supporting large companies in publicized legal cases

## LEADERSHIP EXPERIENCE

**Advisor**, Y Tu Tambien College Mentorship Program
**Mentor**, New York City Mentorship Program
**College Admissions interviewer**, Brown University
**Mentor**, Federal Reserve Bank of New York
**Editor**, Supervisory Development News, Federal Reserve Bank of New York

## CERTIFICATIONS & DESIGNATIONS

- GARP Financial Risk Management certification holder – Passed Level 1 (Nov. 2013), Level 2 (Nov. 2014)
- Passed Federal Reserve Bank Commissioner Proficiency Exam – Part 1 (February 2010)
- *Diploma de Español como Lengua Extrangera* (Diploma of Spanish as a Foreign Language)
- Citizen of the USA and Spain (EU)