

Max Livingston

(917) 536-7410

maxliving@gmail.com

maxlivingston.org

Employment

Knewton

Data Scientist (May 2014 – Sep 2016)

- Design & build Bayesian models of student learning and engagement that power Knewton's adaptive courses
- Write production code in Java implementing online machine learning algorithms to deliver real-time recommendations
- Contribute to in-house Python library for researching student proficiency using Item Response Theory and Bayes Nets (portions of which are open-source here: <https://github.com/Knewton/edm2016>)
- Built new model to predict how long students spend on pieces of content using a Gaussian Mixture Model; developed initial idea and gathered requirements, prototyped and analyzed the model in Python, and implemented it in Java
- Re-wrote a key component of the recommendation engine to simplify its logic and drastically improve its speed

Federal Reserve Bank of New York

Senior Research Analyst (Jan 2013 – May 2014); *Research Analyst* (July 2012 – Jan 2013)

- Program extensively in Stata, SAS, and R to perform econometric analyses that aid economic research projects and inform monetary policy decisions.
- Specific projects include
 - Led team of three analysts to develop and maintain critical programs that produce public data from a monthly survey.
 - Multiple research papers and posts on the NY Fed blog (<http://bit.ly/19dFTkh>) studying the effect of the recession and stimulus on school district finances.
 - Using GIS to map NYC public school closures and relocations after Superstorm Sandy; discussed results in a post on the NY Fed blog (<http://bit.ly/1eDE1Ja>).

Argus Information and Advisory Services, *Summer Analyst*

Summer 2011

- Wrote SQL code to manipulate and segment large datasets (tens of millions of observations) using variables such as customer risk, behavior, and spending to find pockets of opportunity for client banks

Selected Publications

“Did Cuts in State Aid During the Great Recession Lead to Changes in Local Property Taxes?,” with Rajashri Chakrabarti and Joydeep Roy, *Education Finance and Policy*, 9(4), pp. 383–416. Fall 2014.

“The Impact of the Great Recession on School District Finances: Evidence from New York,” with Rajashri Chakrabarti and Elizabeth Setren, *Economic Policy Review*, 21(1), pp. 45–66. October 2015.

A complete list is available at: maxlivingston.org

Education

Columbia University (Non-degree), New York, NY

May 2013 – December 2013

- Graduate non-degree statistics coursework in Machine Learning and Probability.

Wesleyan University, Middletown, CT

September 2008 – May 2012

- Awarded High Honors in Economics for thesis analyzing the effect of teachers' unions on school district performance.
- BA in Economics; Phi Beta Kappa, Dean's List

Stuyvesant High School, New York, NY

September 2004 – June 2008

Skills

- Python (including numpy, scipy, pandas), Java, SQL, Stata, GIS, L^AT_EX, Git