**Alex Varghese**

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**Education**

**Rutgers University**, School of Arts and Sciences  **New Brunswick, NJ**

Bachelors of Arts in Computer Science September 2011-May 2015

Bachelors of Arts in Mathematics

Bachelors of Arts in Statistics

Minor in Operations Research Cumulative GPA: 3.98

**Work Experience**

**Citigroup New York, NY**

Associate in Multi-Asset Group Structuring (LATAM) August 2017-Current

* Provide new structures for retail and institutional clients from Central and South America
* Collaborate with teams in different regions to further develop the Autopricer
  + Work on Autopricer interface to add functionality for greater flexibility in pricing
  + Develop tools for Autopricer Initiative to service our sales desk and clients faster
  + Write simple scripts to connect current Autopricer to existing web interface
* Gain experience with pricing institutional type structures
* Second year analyst responsibilities (see below)

**Citigroup New York, NY**

Second Year Quant Sales & Trading Analyst in Multi-Asset Group Structuring August 2016-August 2017

* Price exotic derivatives on indices, single stocks, and baskets
  + Develop an understanding of exotic option pricing models (PDE and Monte Carlo)
  + Responsible for flow from North American retail clients
* Collaborated with team to create the Autopricer, a tool used to automate the pricing of more vanilla structures
  + Manage daily operation of Autopricer and deal with troubleshooting issues
  + Manage the database for Autopricer to analyze its usage and effectiveness
  + Gather and analyze data every month on pricing requests to better target customer base
* Analyze market to identify themes for the Playbook and consult sales to determine client interest
  + Create back tests on particular structures to show their profitability compared to vanilla products
  + Pitch developed Playbook structures to sales team in monthly meetings
* Participate in deal process from idea generation to execution and regularly consult Trading, Sales, Legal, and Treasury to ensure smooth transactions for clients
  + Assist in the optimization of the client manager to help speed up the process of closing deals

**Citigroup New York, NY**

First Year Quant Sales & Trading Analyst in Mortgage Analysis June 2015-August 2016

* Developed various tools and worked on ad hoc projects for the trading desk
  + Created an LTV bucketing tool to analyze different trends in CPRs (conditional prepayment rates)
  + Created scripts to analyze PnL distribution for various mortgage-backed securities
  + Managed and updated databases for MQA and the trading desk
* Supervised the Yield Book nightly calibration process and automated manual portions of the jobs
  + Ran a daily sync run which consumed daily pricing data and checked for data quality
  + Collaborated with the Yield Book team so clients would have access to systems and data after close
  + Automated and generated monthly prepay and delinquency reports
* Received quarterly CCAR scenarios from the risk team and ran stress tests

**Skills**

**Technical**

* Java (Proficient)
* SQL, Python, C, C++,VBA (Intermediate)
* MATLAB, SAS (Basic)