# Ryan C. D'souza

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#### **Education**

Rutgers University School of Arts and Sciences Honors Program, Dec. 2019

Bachelors of Science in Cognitive Science and Computer Science, GPA: 3.7/4.0

Activities & Awards: Rutgers Student Managed Fund, 1st Place PwC Consulting Challenge

## **Employment**

CommVault (CVLT) Intern, Tinton Falls, New Jersey

Summer, 2015

Greater New York City Area

Data management, protection (security and disaster recovery), backup, and cloud storage company

- Fully developed a Mac application to quickly and securely back up an entire computer or certain directories to the cloud, listen and then upload file modifications, and handle filters
- Devised a dynamic scanning algorithm that takes into account the number of directories and subdirectories to determine an efficient number of scanning threads to create

Javelin Capital Markets, LLC., Intern, New York, New York

Summer, 2014

Swap Execution Facility for Interest Rate Swaps (debt instruments with \$1,000,000 min. value)

- Developed a program to efficiently stream thousands of quotes per second across a network to multiple Excel spreadsheets for price modeling. (30% time reduction)
- Built 4 automated testing systems to continuously test various trading features under different conditions. (tests 10 different platform features)
- Helped switch system from FixML to FPML for validating trades with CMEX & LCH
- Implemented backend for executing Butterfly Swap trades using the C.L.O.B.

## **Projects**

Stock Calculator, Android Application and Java GUI

2013

Uses an algorithm I wrote to determine whether a stock's price will increase in the future.

The algorithm downloads and takes into account the company's P/E ratio, Beta,
 Income Statement, Balance Sheet, Cash Flow, and historical trading data.

Bring Me Food, Android and iOS Application

2014 - 2015

A refined version of Uber for crowd-sourcing the delivery of food.

 Client chooses menu items from a restaurant and a notification is sent to drivers in the area, who can then claim the order and send delivery status updates

iMessage Analyzer, Mac Application

2015

Analyzes all of a user's messages from the database on the computer

- Shows how friendships and texting habits change over time
- Predicts how likely you are to text a person based on the time and when they
  were last contacted. Auto-generated replies (Machine learning decision trees)

Tinder Bot, Python script

2015

A Tinder bot that does the swiping for you

 Uses OpenCV to identify the face and certain facial components, and a neural network to predict swipes based off of facial components ie. hair/eye color

## **Languages & Technologies**

- Experienced: Objective-C (Cocoa & iOS), Java (proficient in all paradigms), Python, Android
- Advanced: SQLite (CTE statements), JavaScript (NodeJS & Parse), C, Bash, Vim, Git