**Ryan D’souza List of Projects & CS Experience**

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My name is Ryan D’souza and I’m currently a Senior at Princeton High School (Princeton, NJ). I’m interested in Computer Science, specifically Artificial Intelligence, Natural Language Processing, and Machine Learning.

**Work experience:**

* Javelin Capital Markets LLC – Paid Intern (60hr/week) (Summer 2014)
  + Trading platform for Interest Rate Swaps in NYC
  + Software Engineering Intern (see resume for details)
* Present – Android Developer (Spring – Fall 2014)
  + Princeton Tiger Labs backed start-up
  + See resume for details
* FireStop – Quality Assurance Tester (Spring – Fall 2014)
  + Princeton University e-Lab backed start-up
* Trenton Kebab House - Web designer and social media manager (2011 – 2013)
  + Restaurant in Trenton

**Classes outside of School:**

* Java for Business Applications (Mercer County College, ‘A’)
* Princeton University Algorithms I (Coursera, Observer)

**Brief Summary of apps created:**

* **Stock Calculator –** Java Desktop GUI and Android Application
  + Parses Nasdaq Exchange to get real time quote of a stock the user enters (as opposed to 15 minute delay that other apps give)
  + Uses an algorithm that takes into account the company’s P/E, Beta, Financial Sheet, Balance Sheet, Income Statement, and historical trading data to determine if it is a good buy
* **File Manager –** AppleScript application
  + Prompts for the assignment title (type it in) and name of the class (button choice)
  + Automatically opens a blank document in Microsoft Word, writes name, the current date, the class name, the class period, and the assignment title in bold
  + Saves the document in the respective class Dropbox folder with the assignment title as the file name
* **QEventShare –** Android Application
  + Streamlines adding and sharing events by allowing events to be created and shared via QR Code
* **PHS PowerSchool –** Android Application: github.com/dsouzarc/PHSPowerSchool
  + Allows one to view grades faster by automatically logging the user in and opening the grades home page
  + Calculates both the weighted and unweighted GPA
  + Unique feature to select multiple assignments and copy them to the clipboard (useful for making a To-Do list)
* **App Searcher –** Android Application: github.com/dsouzarc/appsearcher
  + Similar to the iOS search bar, but for Android (because Android doesn’t have one)
  + Shows a list of all the installed apps faster and with less memory than similar apps on the Play Store
  + Open it via the Notification Bar or a chat head that can be moved around the screen
  + Sort list of apps by either use or name
* **Prom Me –** Android Application
  + Concept of Tinder, but for Prom
  + Users can view other people’s Facebook profile pictures and decide if they would want to go to prom with them. If two people choose each other, they are notified
  + Proof of concept: will not be released
* **Shopder** – Android, Google Glass, iOS, and Web application
  + User chooses a near-by store and enters their shopping list. Their shopping list is returned with an aisle number for each item
    - Items can be added to the shopping list by scanning the item’s bar code
  + Store receives shopping list from user and can send targeted advertisements to user
    - Ex. Shopping List Item: 4 boxes of brownie mix. Store Advertisement: Buy1dozen eggs, get the 2nd dozen free. Logic: Eggs are needed to make brownies
  + User can view shopping list on Google Glass, iOS, or Android application
* **Pitch Counter –** Android and iOS Application: github.com/dsouzarc/pitchcounter
  + League laws place a maximum limit on the number of pitches by a pitcher
  + Pitch Counter allows the coach to make a list of pitchers, add games for each pitcher, and in each game, put the number of Strikes and Balls the pitcher made
  + Coach can view players by number of pitches or their ratio (Strikes / total pitches)
* **Keyboard Scrambler –** Android app: github.com/dsouzarc/keyboard\_scambler
  + Fun game that makes the user type a series of words with a scrambled keyboard
  + Three levels and thousands of possible words (obscure, but legit words)
* **Pacman –** Java GUI github.com/dsouzarc/pacman
  + Classic game
  + Brown University CS 015 Final Project
* **Bring Me Food** – Android and iOS Application (Freelance work)
  + Client orders food to be delivered to an address using either the iOS or Android app (similar to Uber)
  + Drivers (the friend and the friends of the friend who wanted the service) receive the order via a driver iOS/Android app, claim the order, get the order, and drop it off at the client’s address.
  + Driver sends updates along the way
  + In essence, a refined version of Uber for crowd-sourcing food delivery
* **PHS Lab Days –** Service: github.com/dsouzarc/PHSLabDaysAndroid
  + Sends text messages on lab days to students who sign up for it.
  + Currently sending text messages to over 10% of the student body daily
  + Signup link: tiny.cc/phsLabDays
* **Facebook Message Analyzer** – Android Application: github.com/dsouzarc/fbma
  + Analyzes a user’s Facebook messages in private chats and group messages (last 5000 messages)
  + Shows the word used the most often, average response time, and average word and sentence length
  + Shows the time intervals throughout the day when a user responds the quickest and writes the most
  + In implementation under guidance of a Princeton University professor: using Natural Language Processing to understand how a user’s emotions change throughout the day and week