**Brainstorming and Milestone 1: 3 Team Names and 5 1-2 sentence Project Ideas**

[GOOGLE DRIVE](https://drive.google.com/drive/folders/13l4BmXB42lQ5D2DdKWA2vVFE_ZG3xmoR?usp=sharing)

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[Brightspace Submission](https://brightspace.nyu.edu/d2l/lms/dropbox/user/folder_submit_files.d2l?ou=200420&db=553940)

Copy and paste below to submit in Brightspace

Jonny Rothberg, Pratt Shankar, Crystal Wen, Jamie Yoon

3 Team Names

1. The Team
2. Coffee
3. Finance and Data Science

5 Project ideas

1. This online presence visualizer would synthesize a user’s activity across multiple different social media platforms (eg. LinkedIn, Instagram, Facebook, and Twitter), as each individual one allows users to demonstrate different types of competency in engaging others (eg. photo quality, likability, humor, professional skills). This application would compile this data and make a predictive analysis of the users strengths, weakness, authenticity, and sociability.
2. This city view analyzer would approximate a user’s best-timed view using their address, a 3D map, and environmental conditions, given that in a city like Manhattan, phenomena like sunsets and comets are hard to catch in their entirety because of the obstruction by so many tall buildings.
3. This job search tool would use AI to match users to positions they are best suited for by reading through job postings and their descriptions. Job postings the user is qualified for will be accurately filtered, application documents that address desired skills will be automatically generated, and a report on what the job market is looking for will offer pointers for the user to continue developing their skills.
4. Soccer Player Characteristics and Transfer fees - For this topic I would like to scrape player information from the web and correlate it to transfer fees. The goal of this investigation would be to find which characteristic, which includes age, height, nationality, race, preferred foot, etc could influence transfer fees significantly. In application, this program could be used to player valuation for a transfer deal
5. Youtube content making guide - For this topic we would like to run statistics on different categories of Youtube channels to figure out which title, content, product or video length is optimal to attract viewers for a content of a respective category. This would serve as a guide for incoming content creators who would like to get an optimal start for the channel.

NYUSH DS Previous Capstones - <https://sites.google.com/nyu.edu/nyush-cscs/program-2021>

* Jonny Project idea 1
* Use the 3d map of NYC available on OpenData to approximate when would be the best time to view your own personal 'manhattanhenge' depending on your location. Manhattanhenge is the phenom where the sun sets between the towers of NYC, best seen twice a year on 41st and 42nd streets. However, many people living/working in the skyscrapers & buildings of manhattan, when they look westward, have their view of the horizon obstructed by other buildings & skyscrapers. It stands to reason that, if one were to put in their address and rough elevation above ground level, there would be a set of times throughout the year that the sun would set between the buildings to their west, if they qualified--ie, if they had a view of the horizon at all, which is not many ppl
* ~~Project idea 2 - create customizable weighted indices of whatever you want: an index tracking the price of WTI crude, ethereum, DJIA. One could place bets on the price of this basket in x days, and if other people also placed bets, the person with the winningest bet would win the whole pool. Essentially, your losses are only your buy-in bet, while your gain is capped only by the number of other people betting. Could also implement a lotto-type algorithm, so instead of winner-take-all, it could be tiered winnings based on a num of variables which might entail graph theory or some mumbojumbo~~
* ~~Project idea 3 - use a cross of west coast wildfire data and national migration patterns to predict where might be the next hot cities/real estate regions of the west. The west coast--my home--is burning and dying, pushing hundreds of thousands to leave Cali and Oregon. And yet, there are tons of people migrating westward from across the US. If you assigned weights to the migration vectors coming westward, and countered them with weights from the fire refugees leaving eastward, which considers predicted future fires, you could perhaps estimate pockets in the middle of these two forces where real estate development may soon occur, and then use other variables--OSM data on roads, water, power, broadband, public infra/transport--to further wittle these probably very large pockets down into regions/towns.~~
* ~~Crystal Project idea 1 - Spotify playlists currently are all distinct categories, and I wish we could make these user-created classifications more valuable. This project would compare all the playlists a user has created and see how they relate to each other. For me, my playlists might be subsets/supersets of each other, share many items, share many features but no actual tracks, etc. The program should be able to identify outliers in these relationships, group playlists together, and hopefully offer a way to add a new useful playlist to your library based on your listening habits and current playlists (eg in playlist A and B and not C).~~
* Crystal ~~Project idea 2 - This project would be an aid for pianists primarily to learn how to improvise and compose new pieces and songs. The program would analyze sheet music (and/or audio files by matching pitches), and identify which chords are being used. By tracking the different progressions the different pieces/songs use for each chord, patterns for what common patterns sound pleasing will be identified, as well as what to avoid. Perhaps by also classifying genre, tone, and bpm, suggestions can be tuned, and the program will offer sheet music options given a new chord sheet.~~
* Grammarly that is applied and auto-edits things
* Crystal Project idea 3 - Some job search sites allow you to filter for certain requirements, but many postings don't have their requirements flagged, but in the description. This job search tool and aid would parse through job postings and their descriptions and show the user only the ones that explicitly meet the user-chosen needs, such as title, remote/in-person, pay, and candidate qualifications like schooling and competencies. Users could also input their soft skills, and the program would be able to match those to similar concepts that are worded differently. Users might also enter their resume, and the program could generate relevant cover letters. Another feature might be to flag competencies needed across many potentially viable job postings that the user doesn't have, so as to give an idea of what the user should work on to open their possibilities.
* Jamie: idea
  + Soccer Player Characteristics and Transfer fees - For this topic I would like to scrape player information from the web and correlate it to transfer fees. The goal of this investigation would be to find which characteristic, which includes age, height, nationality, race, preferred foot, etc could influence transfer fees significantly.
* Pratt:
  + (Social credit score) (linkedin, instagram, facebook, twitter etc.) Analytics Dashboard
    - Ranked based on image quality, captions, follower count
    - Strengths & weaknesses of online presence
    - How cool, how engaging, how funny
    - Professional Occupation and position
    - Authenticity