Proposals for Capstone #2 -

(nervous) Idea 1 (preface for a more exploratory analysis with relative trends/patterns and underlying asset performance in the future CapStone 3 possibly?) – macroeconomic predictive model based on:

* Productivity curve
* Gross income per household trends + savings trends
  + Focus on money + credit to get total spend w/residual savings
* Debt burden (short-term and long-term debt curves)
  + Emphasis on fed balance sheet
* Interest rates + inflation/deflation
* Incorporate gold as a reference point for the analysis

(likes, but doesn’t feel we have the training yet) Idea 2 – Create an effective system that can accurately identify and localize abnormalities on chest x-rays

* 18,000 annotated images provided by VinLab
* 14 different classifications

Idea 3 – Forecasting model to predict Houston real estate price appreciation

* Incorporates pop. growth per county as a possible influencer
* Idea being to locate the best investment opportunities based on zipcode (crime, school, funding?)
* Use 2015 to project 2020 housing prices
* Feature engineering to compare between zip codes (no forecasting)

Idea 4 – Modeling the change in demographics over the next X amount of years for various countries

* Incorporates census data
* Includes international migration data as well
* I expect % change in this ethnic group
* Socioeconomic activity
* Data lags emerging trends
* Think of music trends (how latino music has been catching on here in the past few years) – how can this change consumer behavior?

Idea 5 – Determining what makes a song popular and unleashing trends

* Use spotify data from 1921-2020 to better understand what makes songs more catchy/popular

Idea 6 – Using a time-series model to predict significant droughts in the US

* Dataset is inclusive of data from 2000-2020
* Data is sourced from the NASA POWER Project and US Drought Monitor

Idea 7 – understanding social engagement (duration, total amount of tweets) and their level of sadness/happiness by analyzing their texts