

SEEM2460 – Introduction to Data Science

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Project Proposal

Title:

Predicting Daily Confirmed Case in Hong Kong (and other countries)

Objective:

Construct models to predict Hong Kong's (and other countries') daily confirmed case next day and after using data from this day or older.

Introduction:

The Wuhan Coronavirus illness (SARS-Cov-2) becomes as a global threat. The aim of this study is first to find the best prediction models for daily confirmed cases and second to predict confirmed cases with these models in order to have more readiness in healthcare systems.

Through predicting the Daily Confirmed Case, we may find out some factors driving the daily case growth (and spotting difference between different countries).

Methods:

This study will be conducted based on daily confirmed cases of Wuhan Coronavirus illness which are collected from Johns Hopkins University from Jan 22nd 2020¹, daily city mobility which are collected from Citymapper from Jan 20th 2020² (and other related data collected from other sources). And predict using regression models including but not limited to Ordinary Least Square (OLS), Ridge and Least Absolute Shrinkage and Selection Operator (Lasso) , time series model including but not limited to Autoregressive Integrated Moving Average (ARIMA) and other possible methods.

¹ CSSEGISandData. (2020, April 24). CSSEGISandData/COVID-19. Retrieved from <https://github.com/CSSEGISandData/COVID-19>

² Citymapper. (n.d.). Citymapper Mobility Index. Retrieved from <https://citymapper.com/cmi>