**ASRM 595 Deep Dive Project**

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**Topic**: Project #6 Drug Overdose Deaths

Datasets on recent drug overdose counts can be found at

[Products - Vital Statistics Rapid Release - Provisional Drug Overdose Data](https://www.cdc.gov/nchs/nvss/vsrr/drug-overdose-data.htm)

There is a [crisis](https://www.ama-assn.org/system/files/issue-brief-increases-in-opioid-related-overdose.pdf) plaguing the nation. Between 2020 and 2021 alone, more than 107,000 drug-related deaths were reported in the United States. Drawing on data from the last few years, is there a way to predict potential future drug overdose counts? This sort of prediction may aid in the development of law and policy that reduces the potential for overdoses on a state-by-state basis, and enlighten non-profit organizations that tackle the drug problem in ensuring their resources are properly allocated to areas with the most dire overdose situations.

**Label(s)**

* Predicted OD count Per state

**Features:**

* Month
* Indicator (drug type)
* State
* OD count, including that of previous years (included within dataset)
* Percent Pending Investigation
* Weather / Season (Daily, possibly hourly) → Do overdoses increase based on season?
  + [Datasets | Climate Data Online (CDO)](https://www.ncdc.noaa.gov/cdo-web/datasets)

Are overdose deaths self-exciting? Consider using a RNN

Project Curated by Jared Canty (Summer 2022 Blackwell Program)