

Verify Coefficient Creation

Started June 3, 2019

Steps in running model

- get weather data from source
 - cron running on arcus.sws.uiuc.edu
 - data 2 days behind current date
 - verified 03 Jun 2019
- daily weather
 - convert to cm and celsius
 - average min and max temps
 - put into year-month-week dictionary (verified 03 Jun 2019)
- calculate_seasonal_weather
 - **problem with seasons** 03 Jun 2019
 - change made large difference in winter seasonal values (below)
 - values:
 - temp avg summed and divided by 13
 - precip avg is summed (not divided by 13) (changed 14 Jun 2019 to divided by 13)
- calculate_weekly_30yr_normals
 - looks ok
- calculate_seasonal_30yr_normals
 - **mistake** divided season average by 13 not 30

calculate_seasonal_weather	Notes	output winter 2016	Coefficients
	<ul style="list-style-type: none"> • For winter, previous calendar year should be for weeks 49-52 (3) not 1-9 • for first year of data, all seasons within if count_years > 1 block 	<pre> before 2016: {'fall': {'degree_week_average_c': 16.087301587301575, 'precip_week_average_cm': 21.488400000000002}, 'spring': {'degree_week_average_c': 0, 'precip_week_average_cm': 28.5242}, 'summer': {'degree_week_average_c': 6.838827838827833, 'precip_week_average_cm': 40.9194}, 'winter': {'degree_week_average_c': 4.9499389499389475, 'precip_week_average_cm': 11.556999999999999}}, </pre>	<pre> before "2": { "dw2preci4": "-0.0005795453", "lastsummertemp": "0", "wintertemp": "0.1617251", "dw2preci3": "-0.1668376", "dw2preci2": "0.003797379", "dw2preci1": "-0.3367884", "dw3preci1": "0.293194", "dwlpreci4": "-0.02145926", </pre>

before

```
for epi_week in weekly_weather[epi_year]:
    if count_years > 1:
        if 1 <= epi_week <= 9:
            seasonal_weather[epi_year]
["winter"]["degree_week_average_c"] +=
weekly_weather[epi_year-1][epi_week]
["degree_week_c"]
            seasonal_weather[epi_year]
["winter"]["precip_week_average_cm"] +=
weekly_weather[epi_year-1][epi_week]["precip_cm"]
            if 49 <= epi_week <= 52:
                seasonal_weather[epi_year]
["winter"]["degree_week_average_c"] +=
weekly_weather[epi_year][epi_week]
["degree_week_c"]
                seasonal_weather[epi_year]
["winter"]["precip_week_average_cm"] +=
weekly_weather[epi_year][epi_week]["precip_cm"]
                if 23 <= epi_week <= 35:
                    seasonal_weather[epi_year]
["summer"]["degree_week_average_c"] +=
weekly_weather[epi_year][epi_week]
["degree_week_c"]
                    seasonal_weather[epi_year]
["summer"]["precip_week_average_cm"] +=
weekly_weather[epi_year][epi_week]["precip_cm"]
                    if 10 <= epi_week <= 22:
                        seasonal_weather[epi_year]
["spring"]["degree_week_average_c"] +=
weekly_weather[epi_year][epi_week]
["degree_week_c"]
                        seasonal_weather[epi_year]
["spring"]["precip_week_average_cm"] +=
weekly_weather[epi_year][epi_week]["precip_cm"]
                        if 36 <= epi_week <= 48:
                            seasonal_weather[epi_year]["fall"]
["degree_week_average_c"] += weekly_weather
[epi_year][epi_week]["degree_week_c"]
                            seasonal_weather[epi_year]["fall"]
["precip_week_average_cm"] += weekly_weather
[epi_year][epi_week]["precip_cm"]
```

```
"precilag1
":
"-0.045655
07",
"dwlag1":
"0.6759879
",
"winterpre
ci": "0",
"dwlag3":
"-0.362320
5",
"springtem
p":
"-1.443487
",
"dw3preci3
":
"0.0817753
1",
"dwlpreci2
":
"-0.062638
24",
"dwlpreci3
":
"0.0292632
5"
}
```

