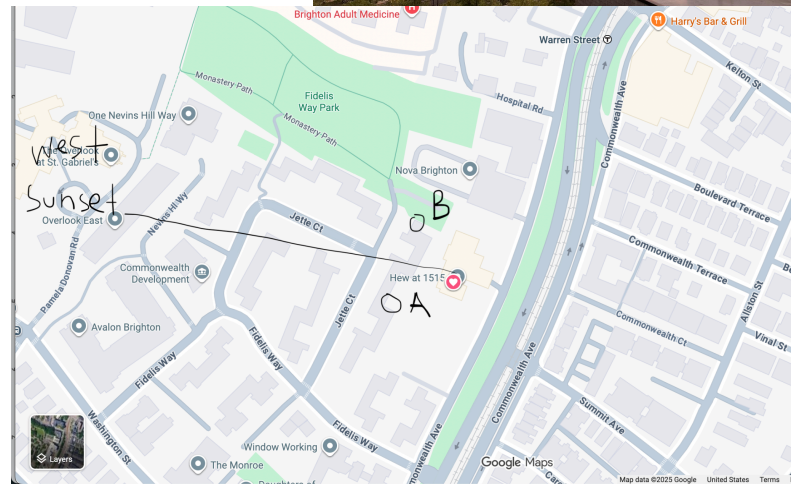


Danny Chen
IN 250
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Autumnal Equinox Report

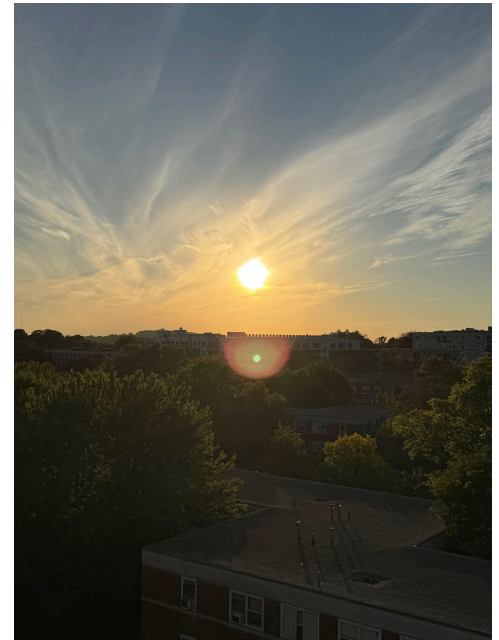
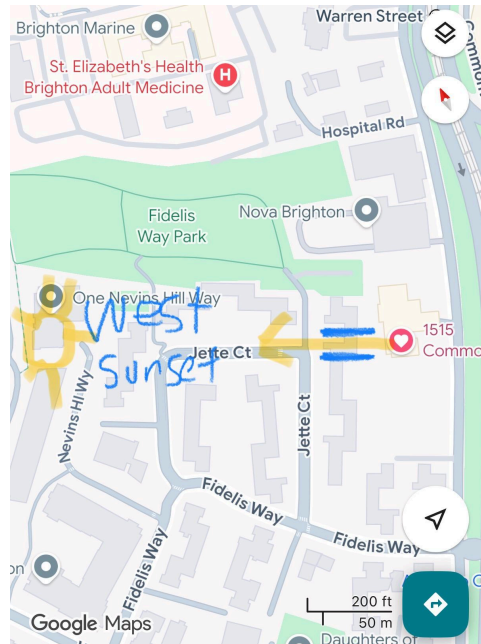
This 1st photo was taken on September 7th at 7:08 PM from the balcony of my apartment. I tried to find the easiest accessible, highest location that I could find. I had a good view of the sky, but unfortunately, I actually missed catching the sunset because it was set behind the white building in front of me.

This 2nd photo was taken on September 14th at 7:06pm from the balcony of my apartment. Even though I couldn't capture a good picture of the sunset I still watched the sun drop so I could kind of guess the direction of the sun. Actually I used the building it dropped behind as the main landmark which turned out to be fairly useful.



By checking on Google Maps and drawing a line from my direction to the building that the sun dropped behind, I could get a general direction of the sunset. The map shows the sunset mostly to the west and slightly to the north and this makes sense since this photo was taken about a week before the equinox. Surprisingly even though I couldn't see the sunset directly, I felt like this was still pretty accurate because I could catch where the sun was falling.

This 3rd photo was taken on September 22 at 6:45 PM from the top of my apartment during the Autumn Equinox. I went to the top of the building this time. Knowing that the sun would be blocked (from previous experiences), I took a photo before the sun dropped below the building, instead of waiting for the real sunset – the direction is most important, and it shouldn't make a difference if I capture it at the exact time of sunset. From my perspective, the sun



appears to drop right behind the building shown below. Going on Google Maps, I can draw a straight line from my location to the location of the sunset, which is mostly due West.

For this project, I ended up taking the pictures from the same building for all 3 attempts during September in Boston, Massachusetts, 2025. a location placed in the Northern Hemisphere on Earth. All three photos were taken at around sunset (varying from around 6:45 PM to around 7:08 PM) and with the same phone camera. The first two attempts were taken from my balcony, while the Autumn Equinox photo was taken from the top of my apartment. The weather was the biggest factor outside of my control, but luckily it was not an issue for any of my 3 photo attempts. After my 1st photo attempt, I originally planned to find a better location because of the building in front of me blocking the sunset, but then, after taking the 2nd photo attempt slightly before sunset and getting good results, I realized that the photo just before sunset would be “good enough” and decided to stick to the same schedule for the last photo for consistency’s sake and ease of access. The two first photo attempts showed me that perfect precision was not really needed. After obtaining the photos, for the last two photo attempts, I then used Google Maps to check the location of the key landmarks and mark the location of the sunset relative to my position, drawing a straight line from the observed setting location relative to my position.

By comparing the last two photo attempts, you can slightly notice that the Autumn Equinox is closer to due West and slightly more south than the photo taken the week before during attempt number 2. This matches the general idea about the location of the Sun relative to the earth as perceived from the Northern Hemisphere. These photos also show me that, for the Autumn

Equinox project, you don't have to be completely perfect (a slightly obstructed view of the sunset) to get good results. This is probably because of the powerful brightness of the Sun and its great distance away from the Earth. I think outside random factors like unexpected weather events would have been more problematic, but luckily it was not an issue. I am reasonably satisfied by my results. If I were to repeat the project next year, of course the best change is to find and pick a better location, one that is very high up with a clear unblocked view of the horizon. However, after thinking about this project, I realized that I did not feel any awe from the setting Sun during the Equinox: it felt like any other sunset, and was only remarkable if you go back and check the location on Google Maps. Somehow, the majesty and impact is lost along the way. To make this more inspirational and memorable, perhaps I can copy what people did in the past: set up special alignments like at Stonehenge, Chetzen Itza, or the Pantheon of the Roman Empire. If you do this preparation beforehand, you would not need to use Google Maps. By aligning your markers correctly before the Equinox, you can feel the same sense of awe as people did in the past.