

# Results

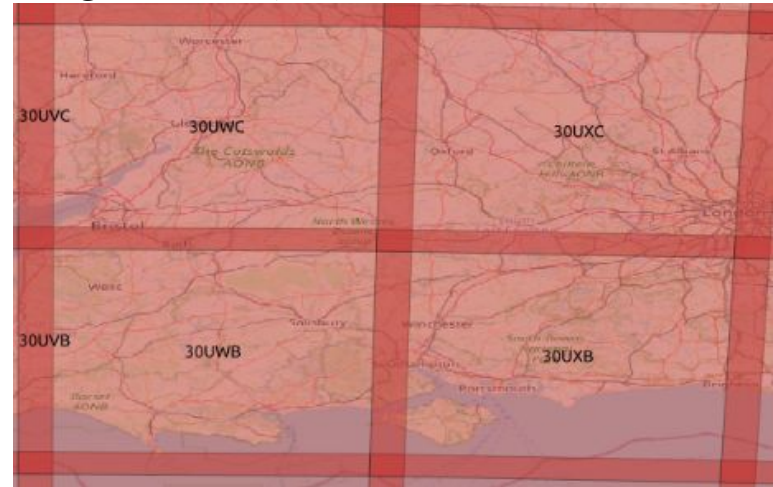
S1, S1 separated ,and S2 band 08

The left subplot refers to the actual value while the right subplot are the errors. The model, pixel and the data considered is mentioned in the title. Please refer to the legend for additional information.

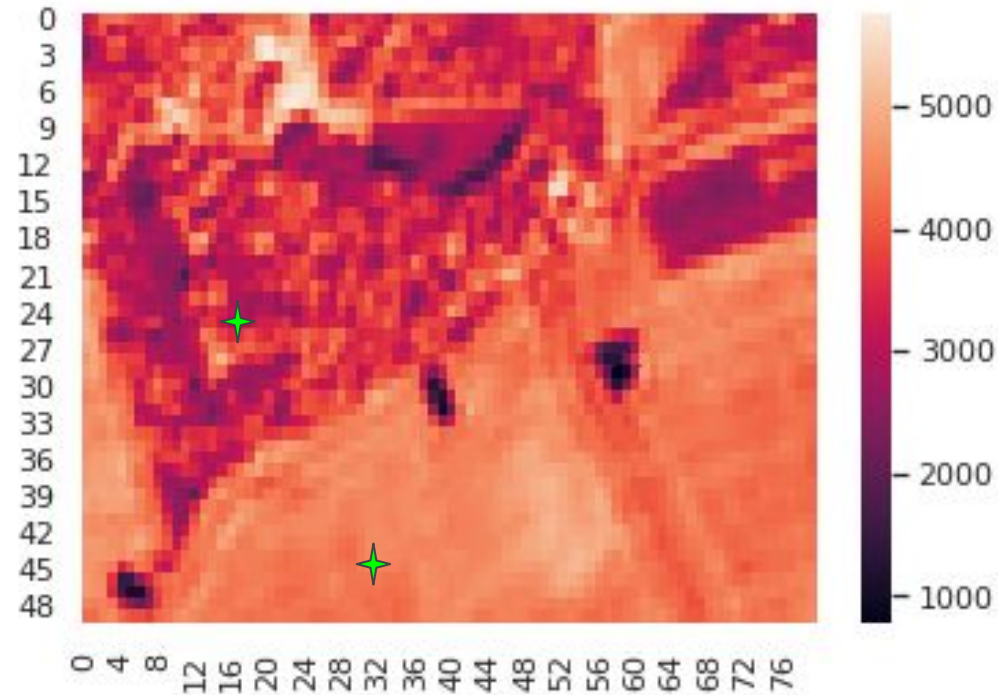
# Time, area and, data under consideration

- ❖ Time period between 01.01.2019 - 31.12.2021
- ❖ Area: Top 80x50 area of Surrey, UK Tile 30UXB (As displayed in the figure below)
- ❖ Data used:
  - Sentinel 1
  - Sentinel 1 separated in ascending and descending orbits and,
  - Sentinel 2, Band 08
- ❖ Area under focus (i.e. plotted for every time step)
  - 45\_32
  - 25\_16
- ❖ Models compared:
  - Prophet
  - AutoARIMA

**Note:** Variations in data and time period in individual cases are mentioned separately



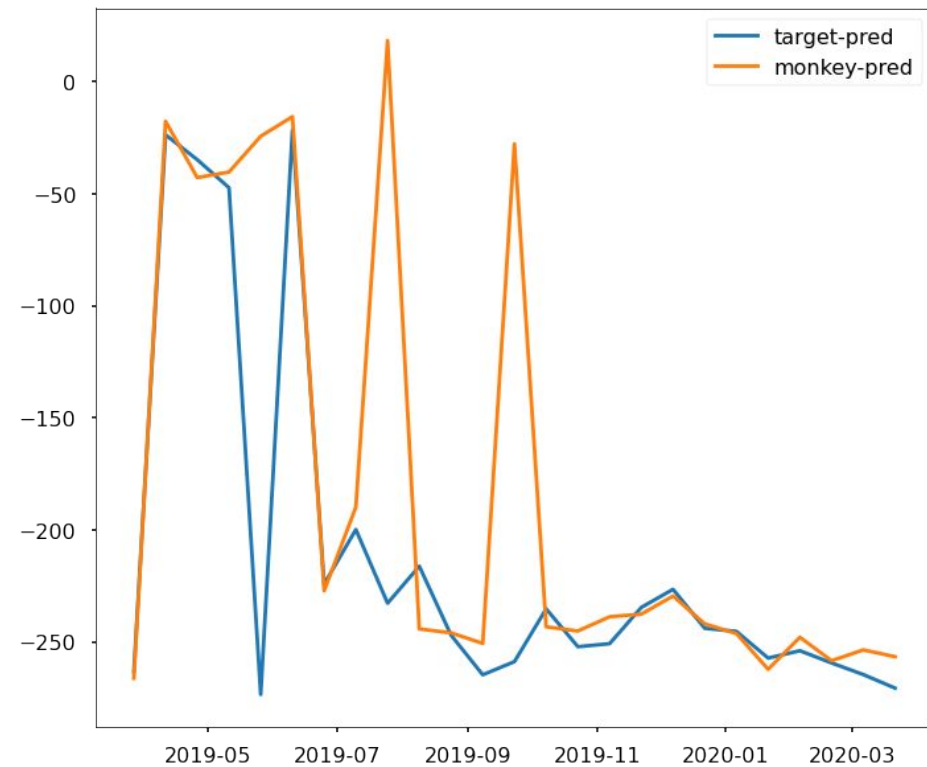
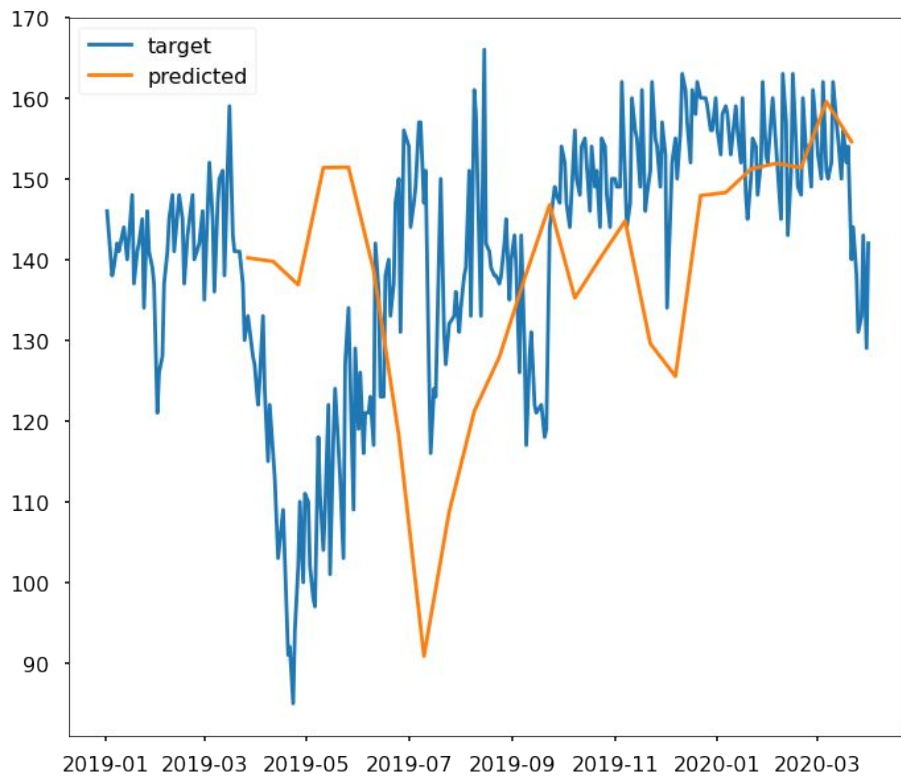
# Area under focus (marked with crosses✦)



**Results: S1**

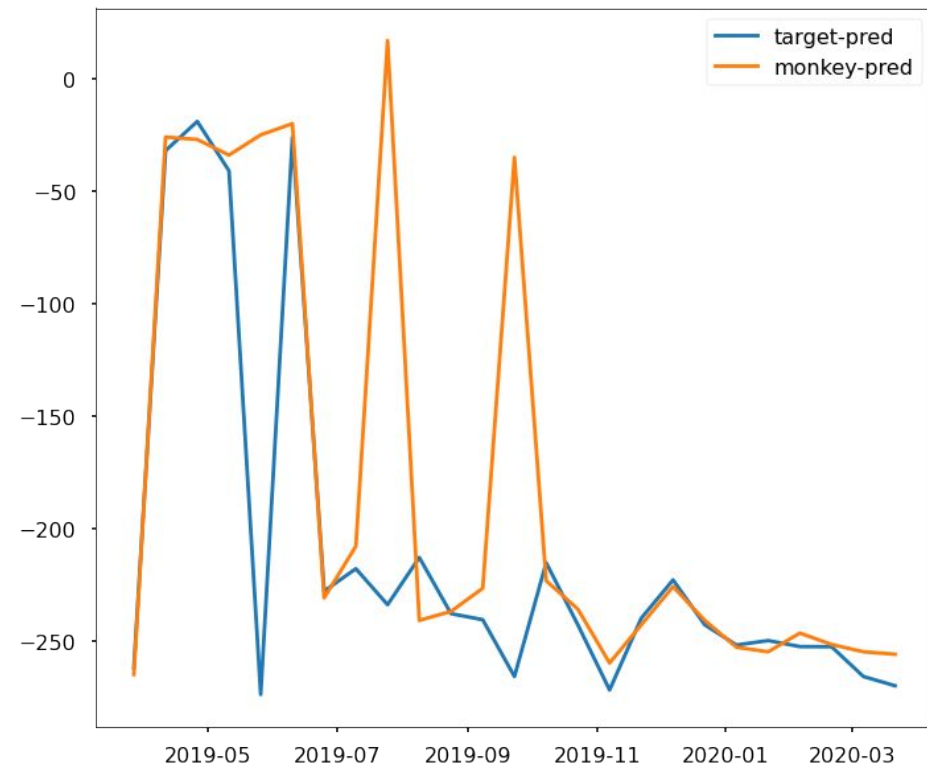
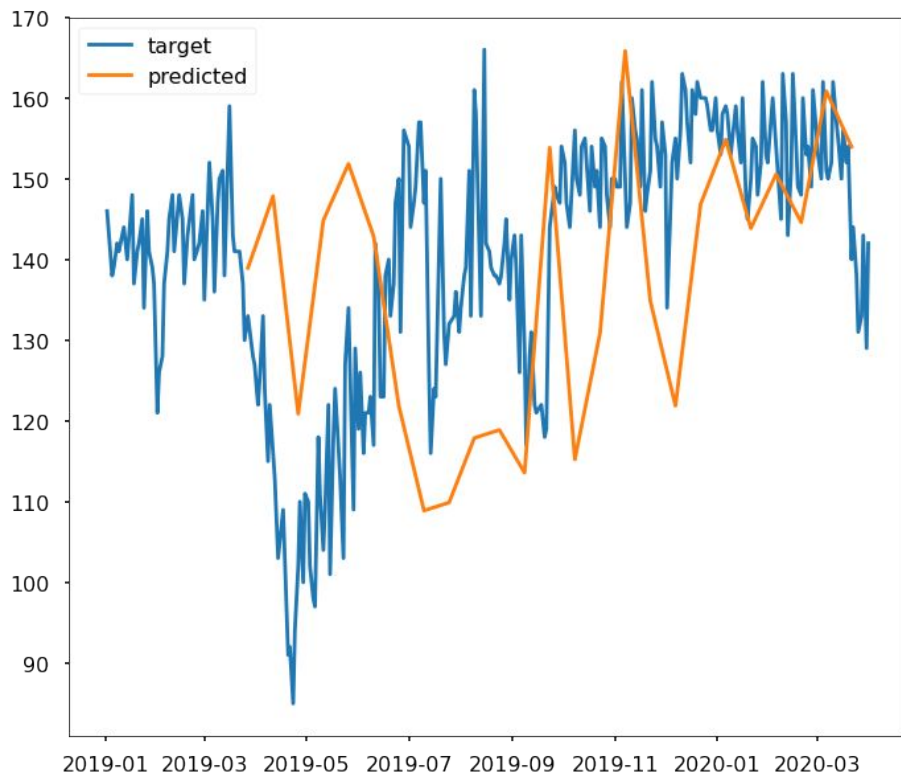


S1 Prophet - 45x32



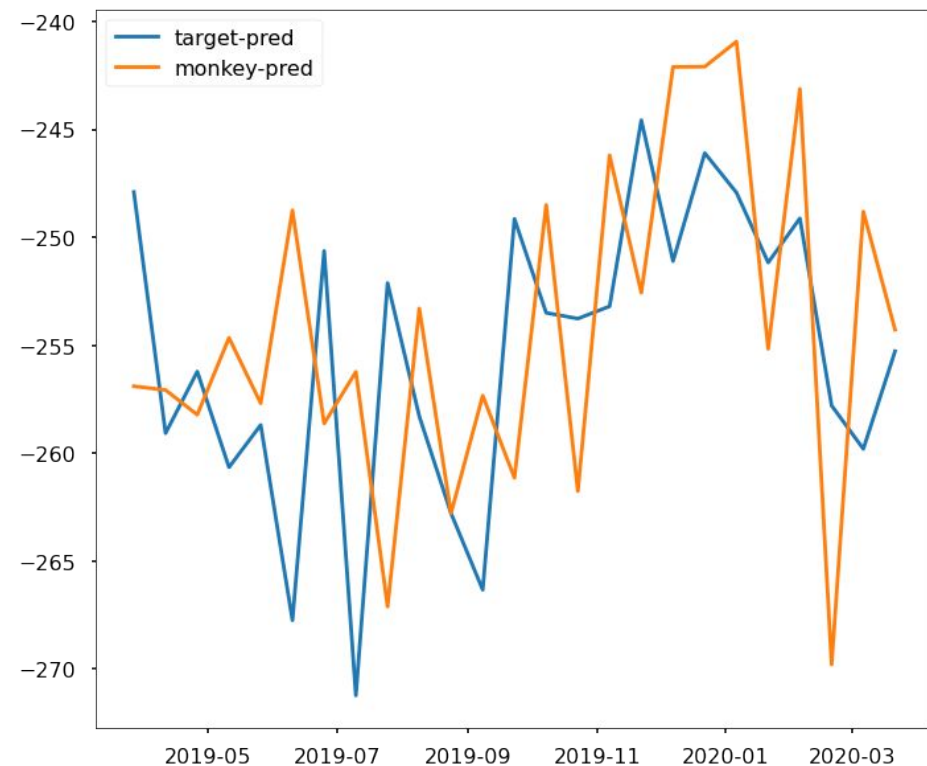
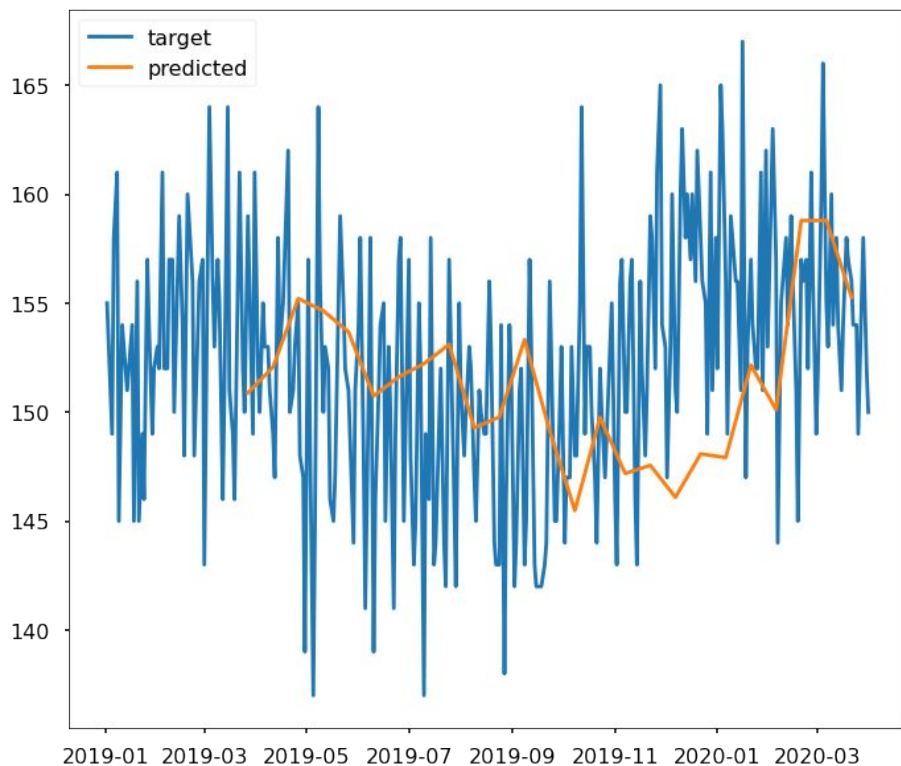
**S1 45x32 - Prophet**

S1 AutoARIMA - 45x32

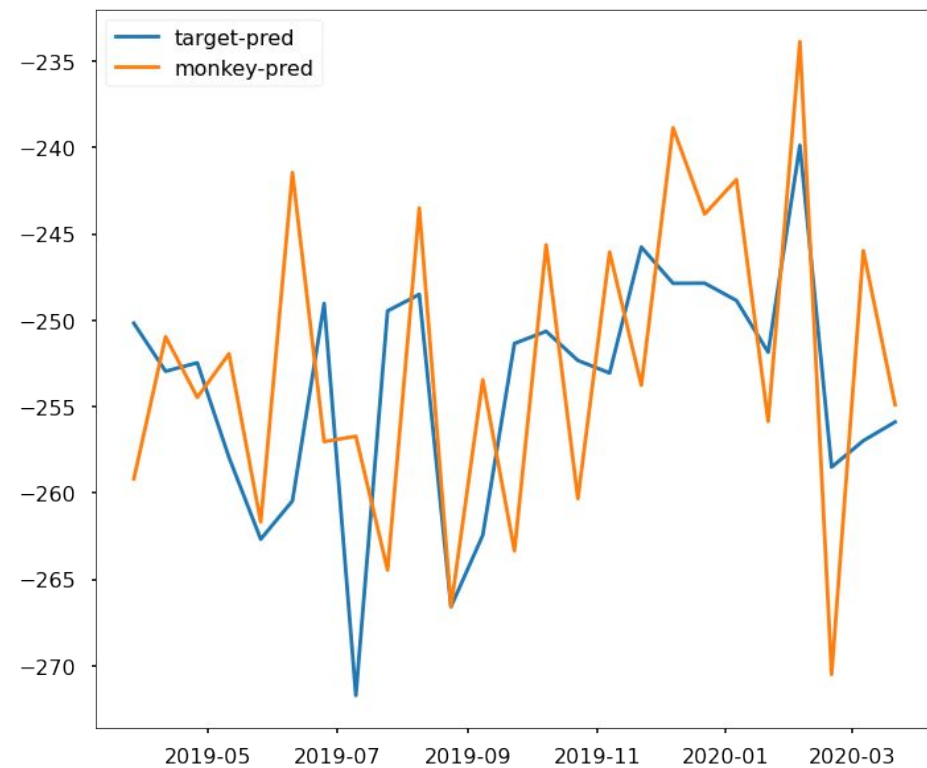
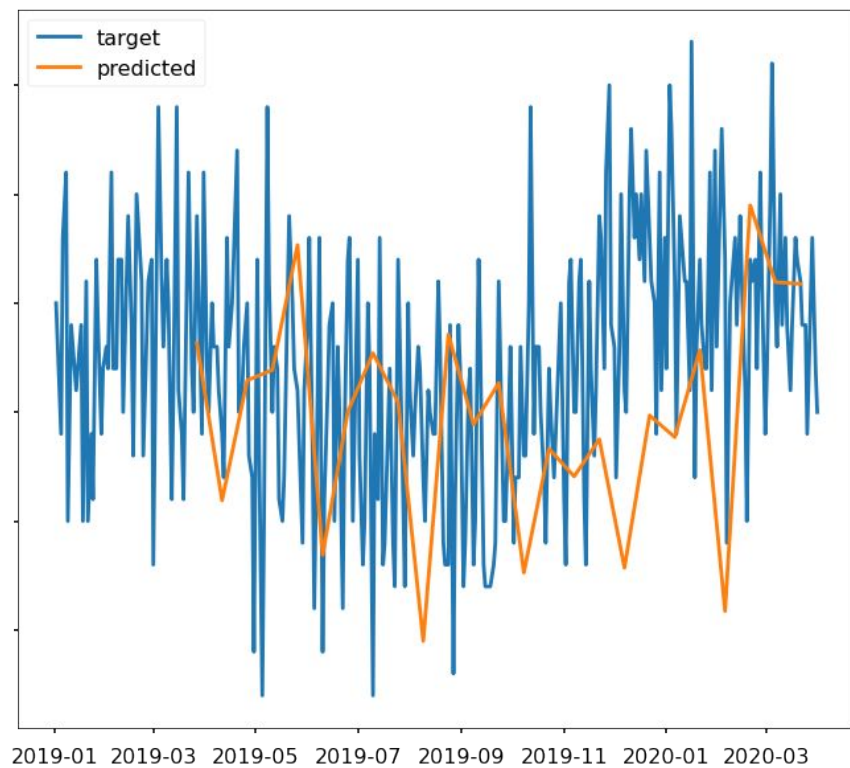


**S1 45x32 - AutoARIMA**

S1 Prophet - 25x16



**S1 25x16 - Prophet**

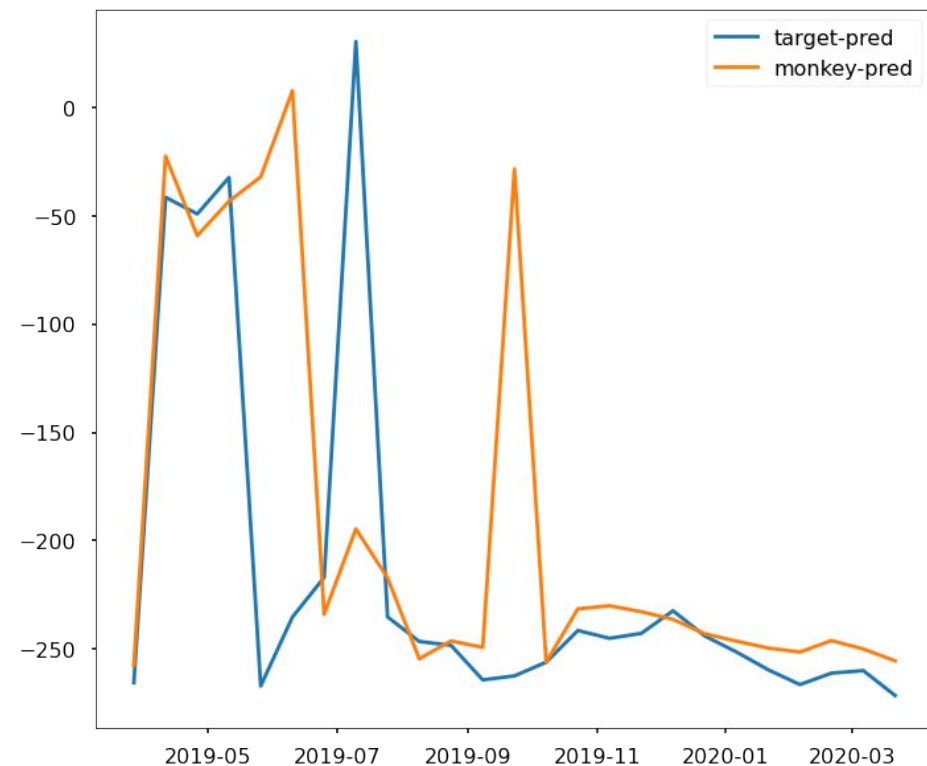
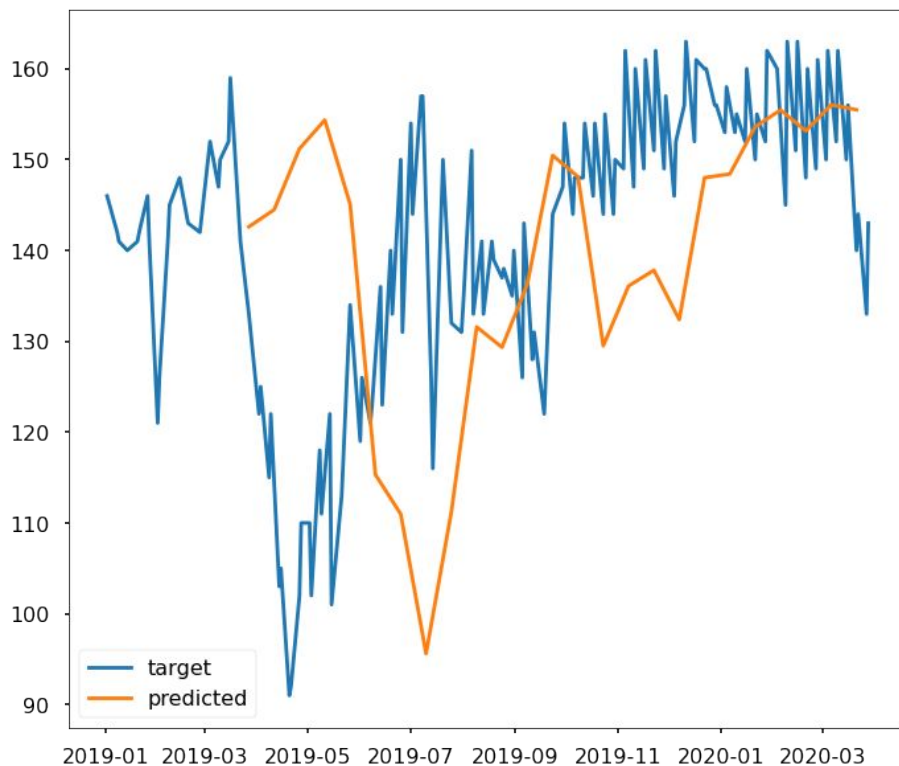
**S1 25x16 - AutoARIMA**



**Results: S1 Ascending Orbit**

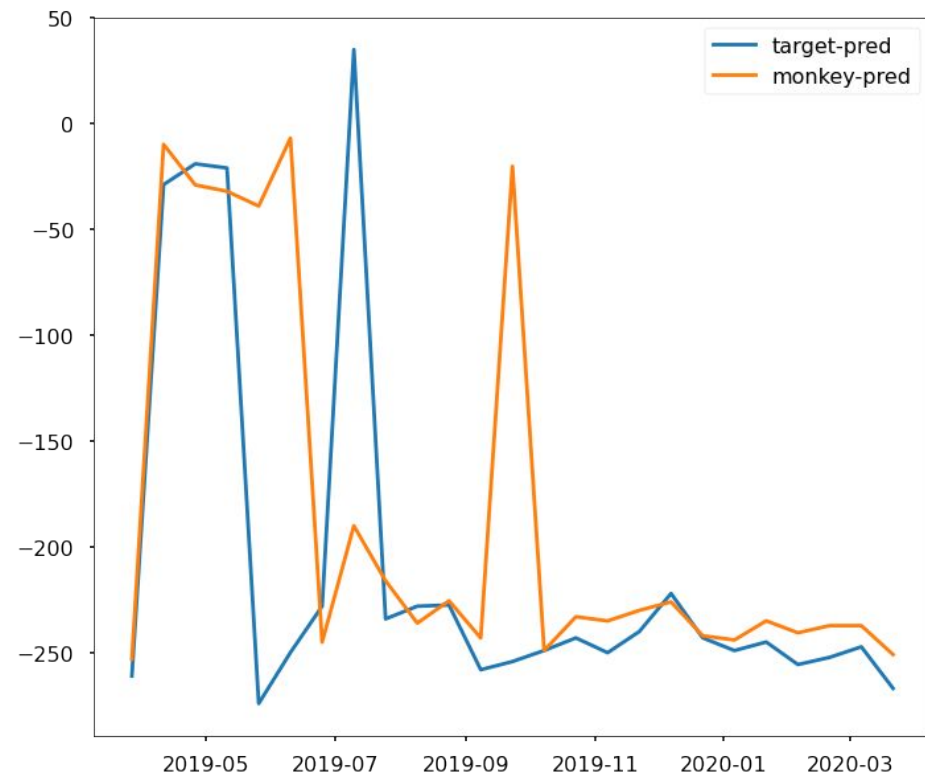
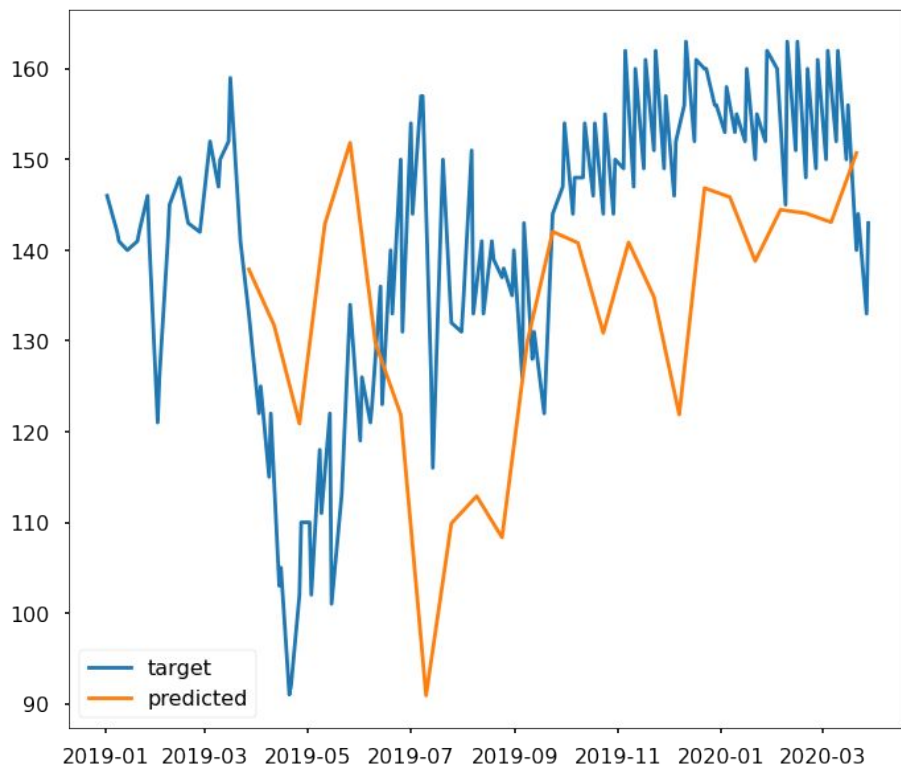


S1 Asc Prophet - 45x32



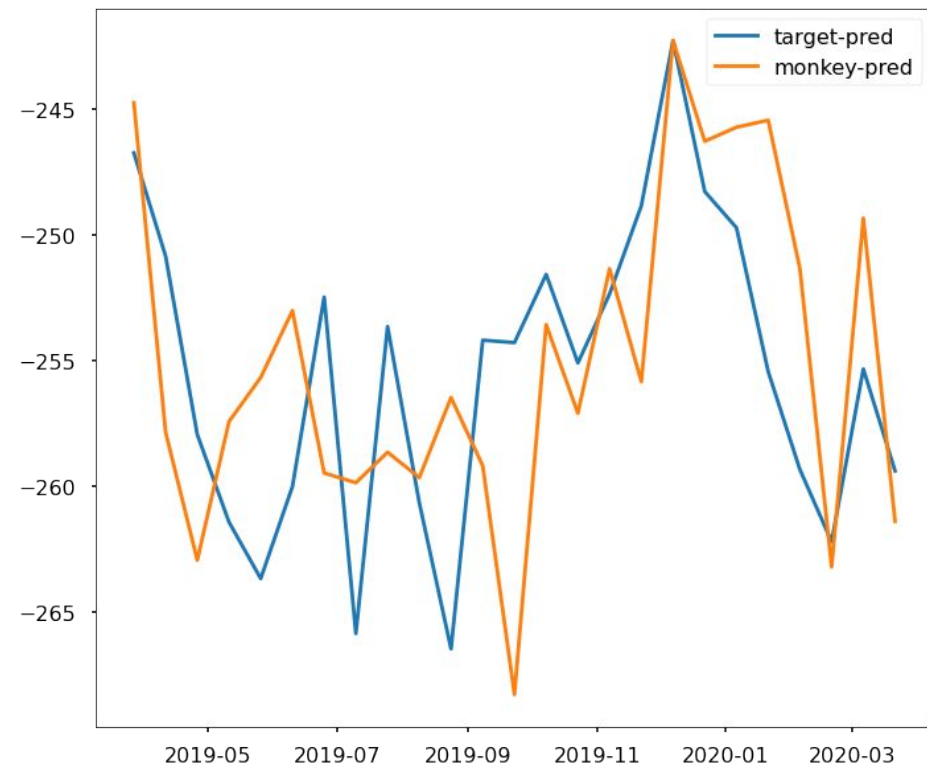
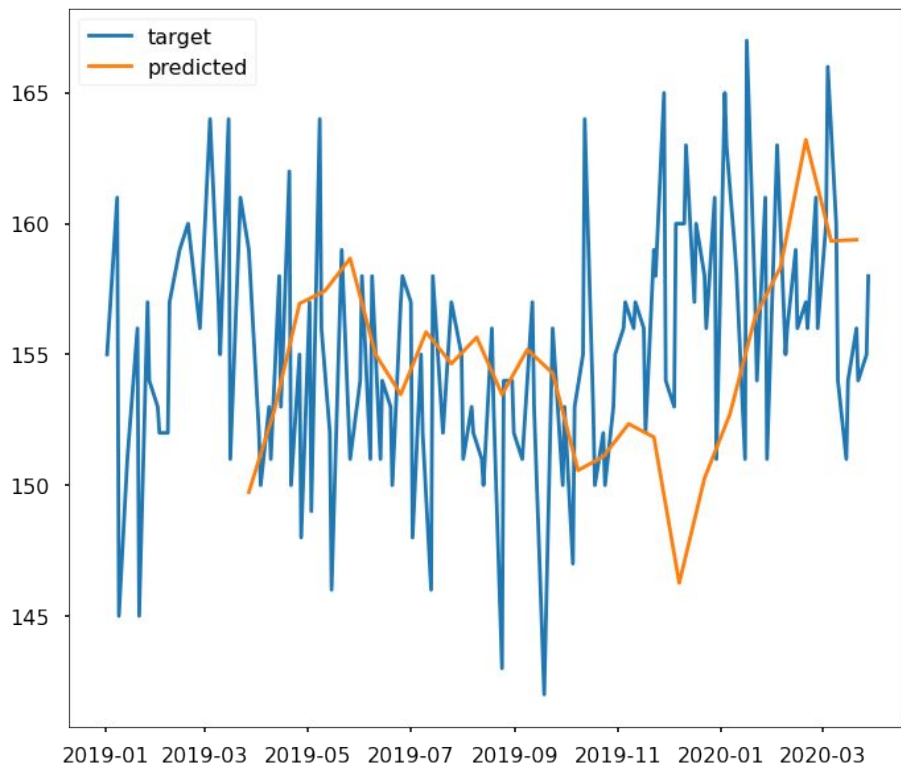
**S1 Asc 45x32 - Prophet**

S1 Asc AutoARIMA - 45x32



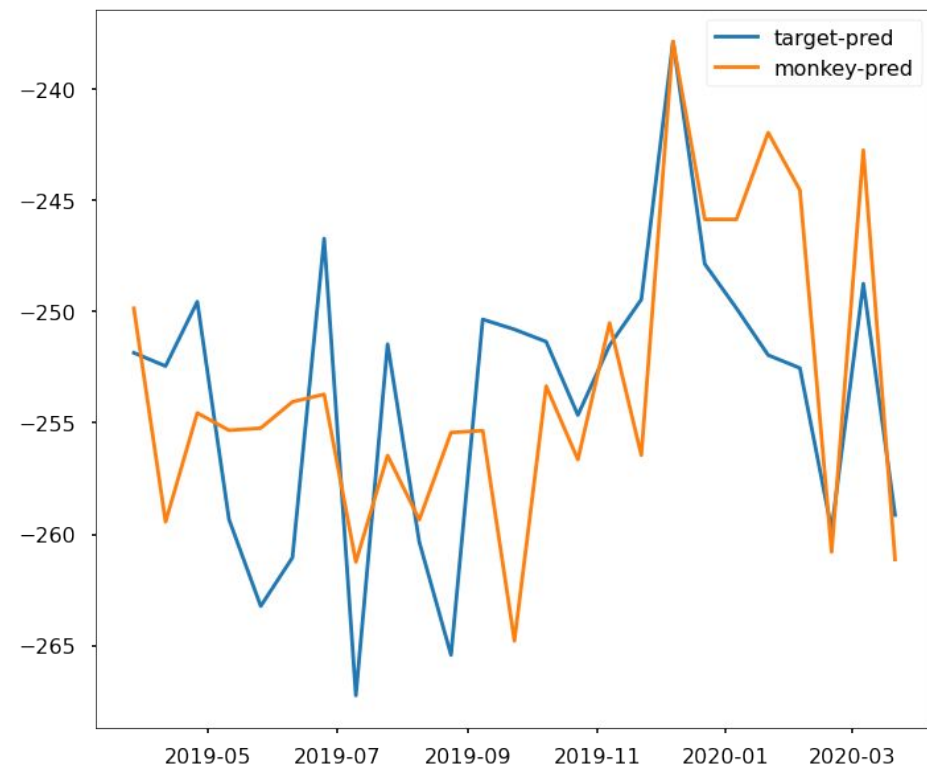
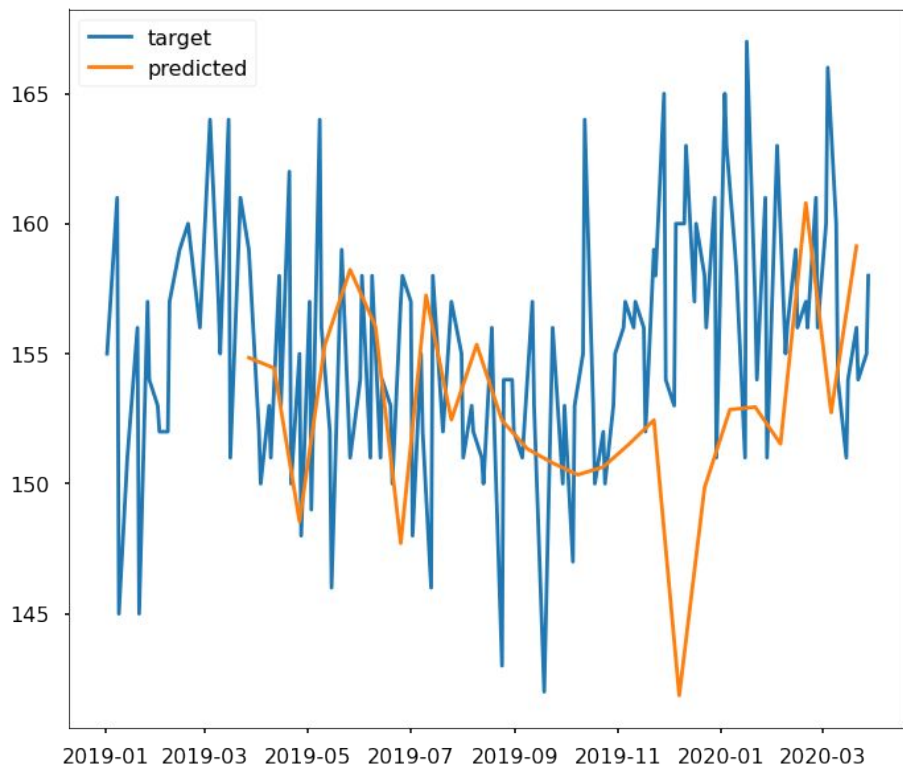
**S1 Asc 45x32 - AutoARIMA**

S1 Asc Prophet - 25x16



**S1 Asc 25x16 - Prophet**

S1 Asc AutoARIMA - 25x16

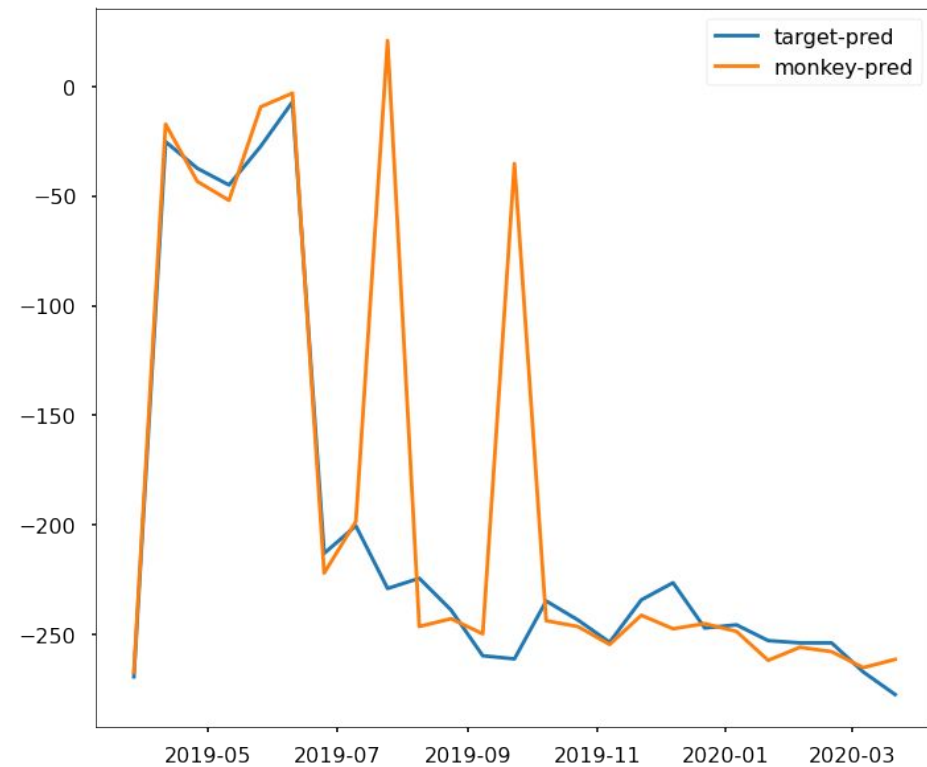
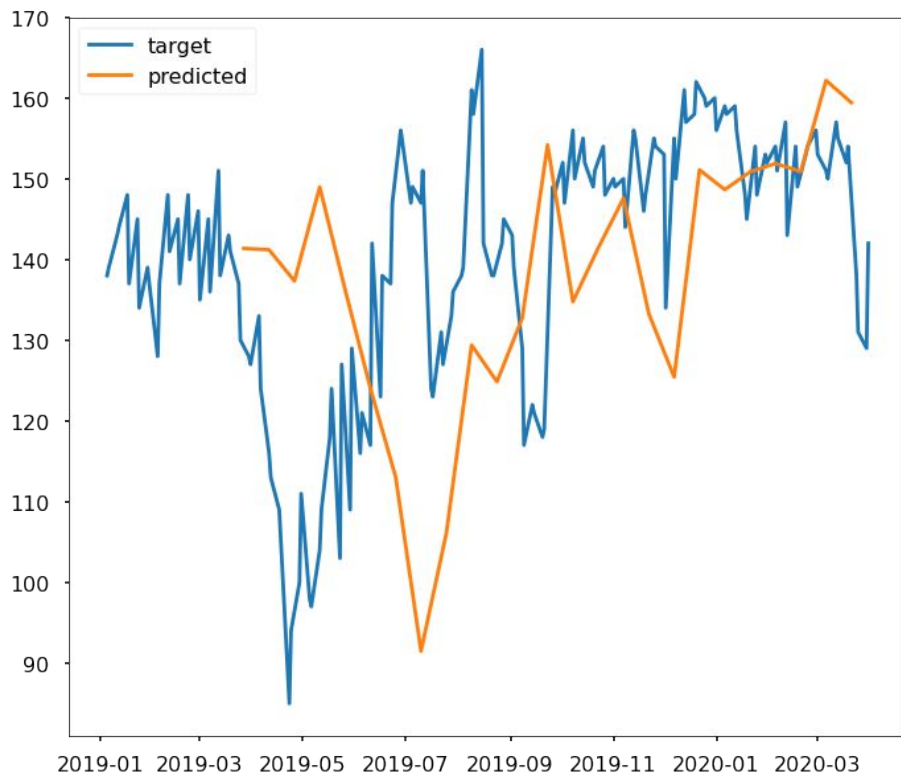


**S1 Asc 25x16 - AutoARIMA**

**Results: S1 Descending Orbit**

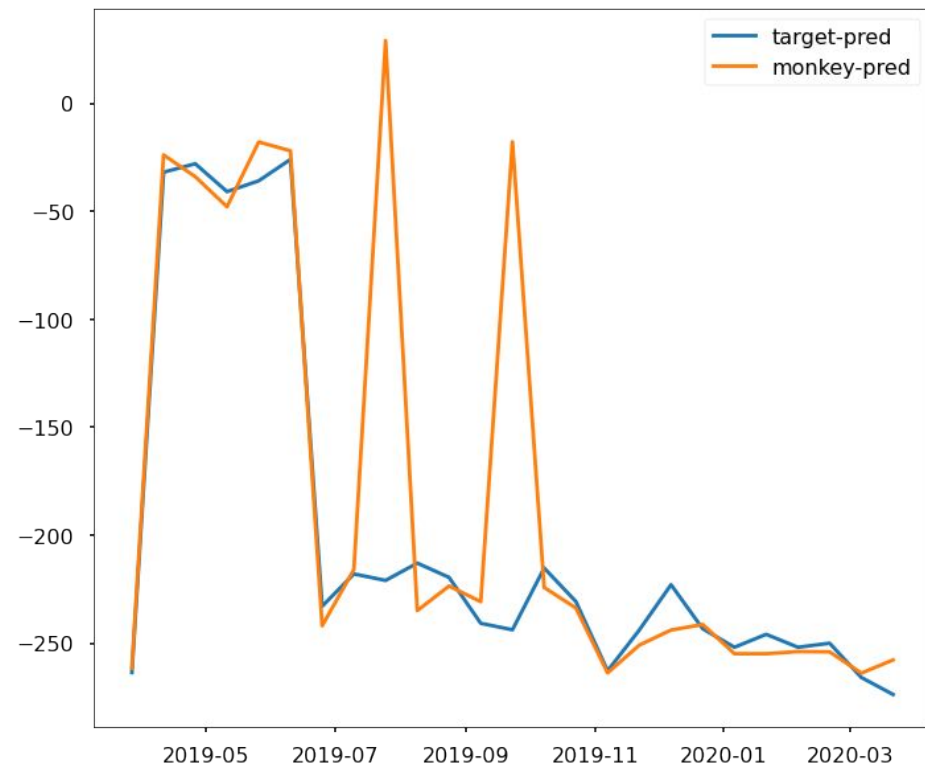
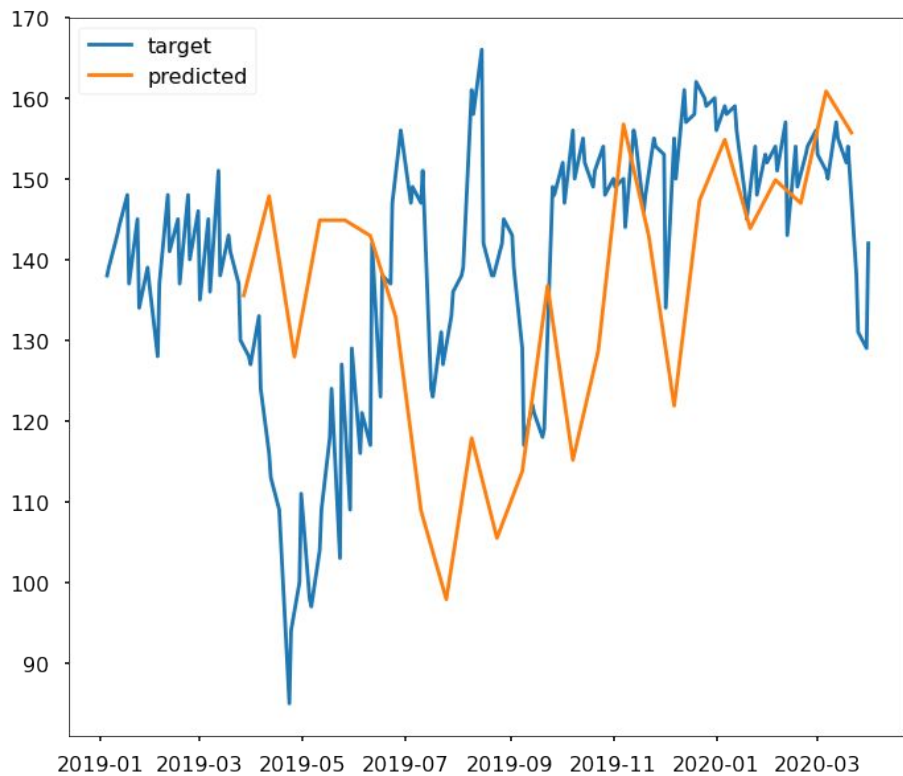


S1 Dsc Prophet - 45x32



**S1 Dsc 45x32 - Prophet**

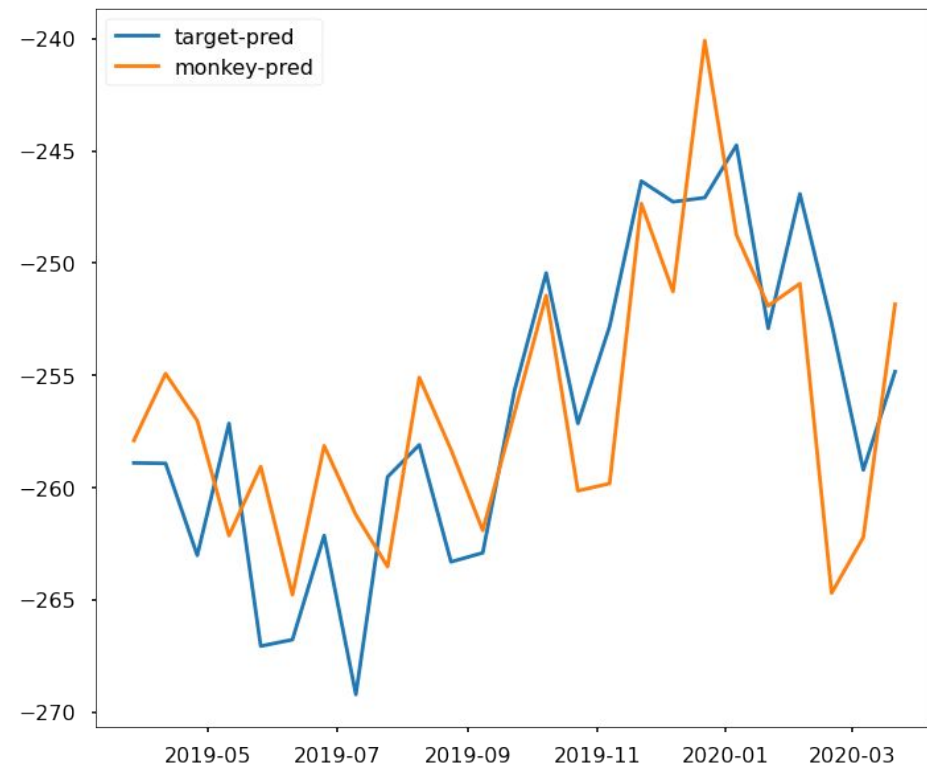
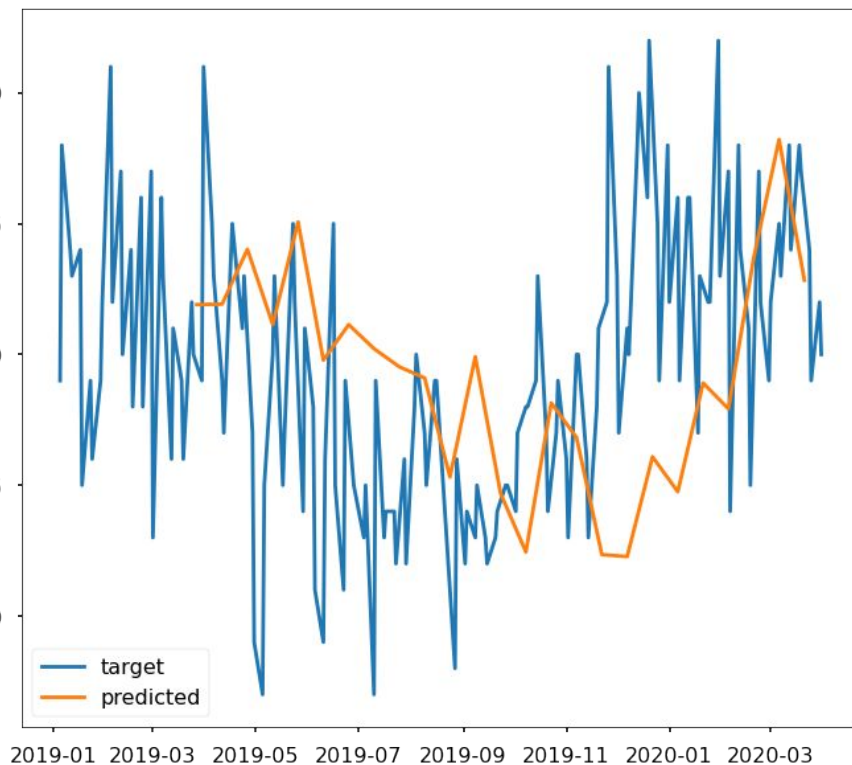
S1 Dsc AutoARIMA - 45x32



**S1 Dsc 45x32 - AutoARIMA**

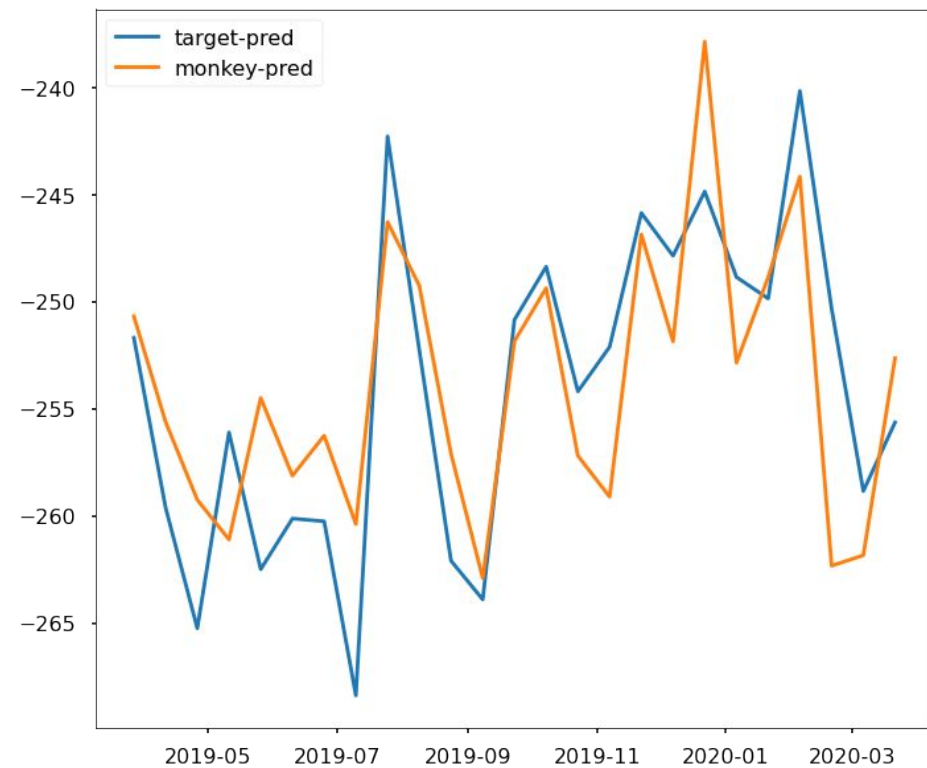
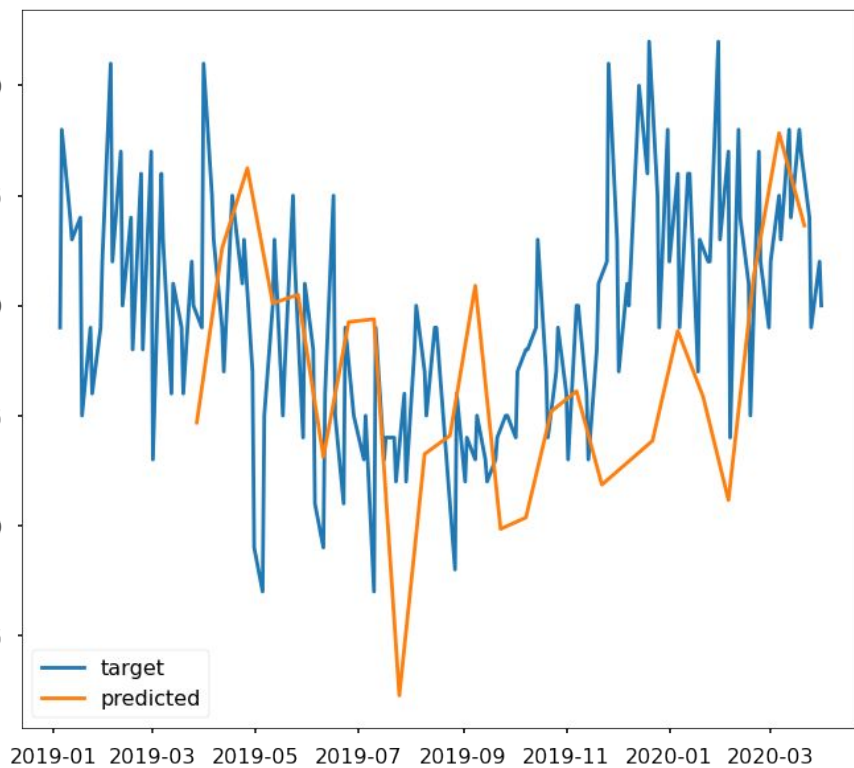


S1 Dsc Prophet - 25x16



**S1 Dsc 25x16 - Prophet**

S1 Dsc AutoARIMA - 25x16

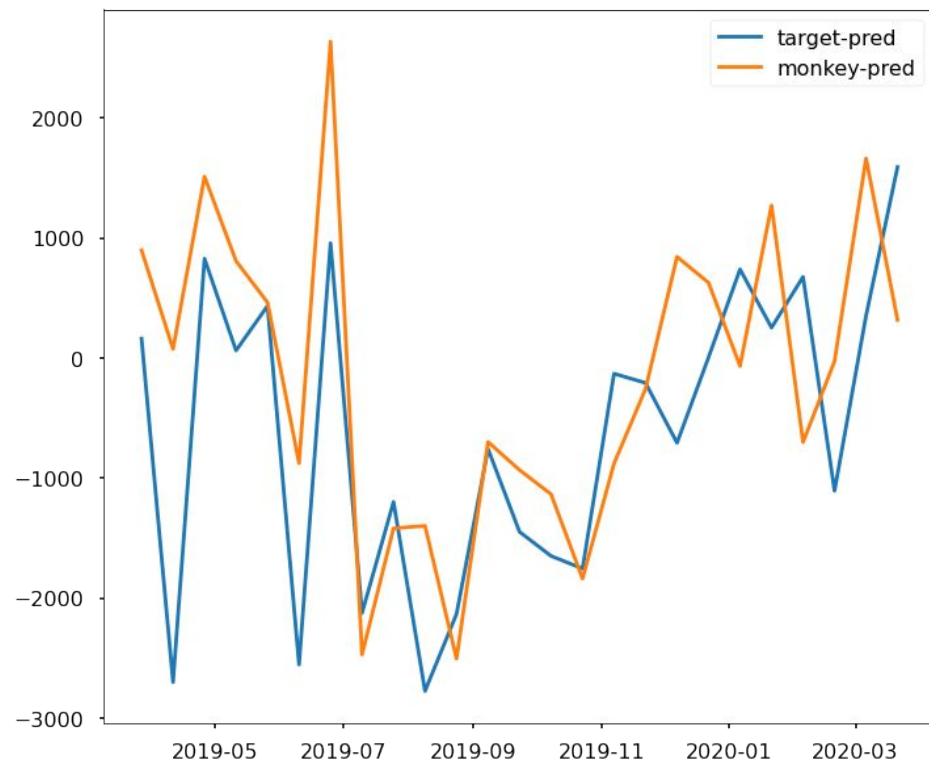
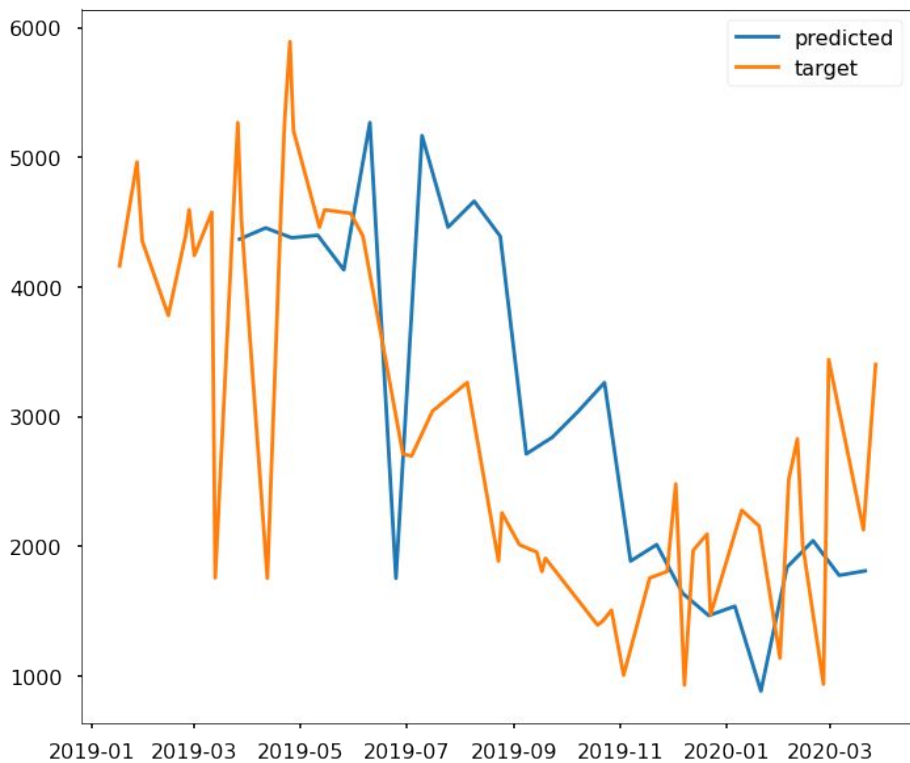


**S1 Dsc 25x16 - AutoARIMA**

**Results: S2 Bando8**

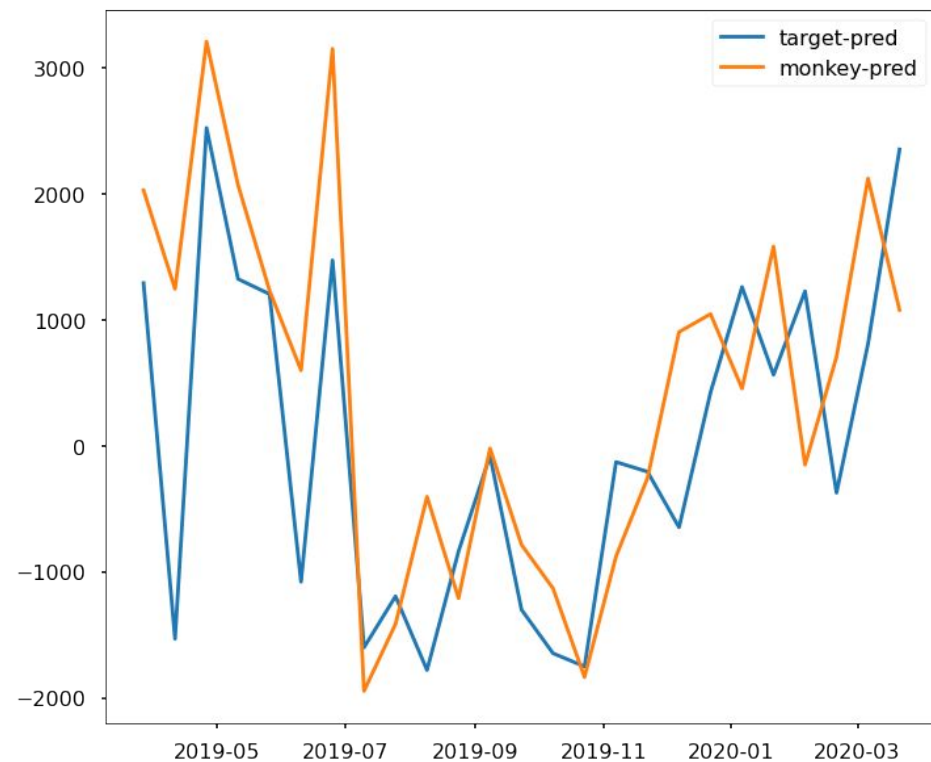
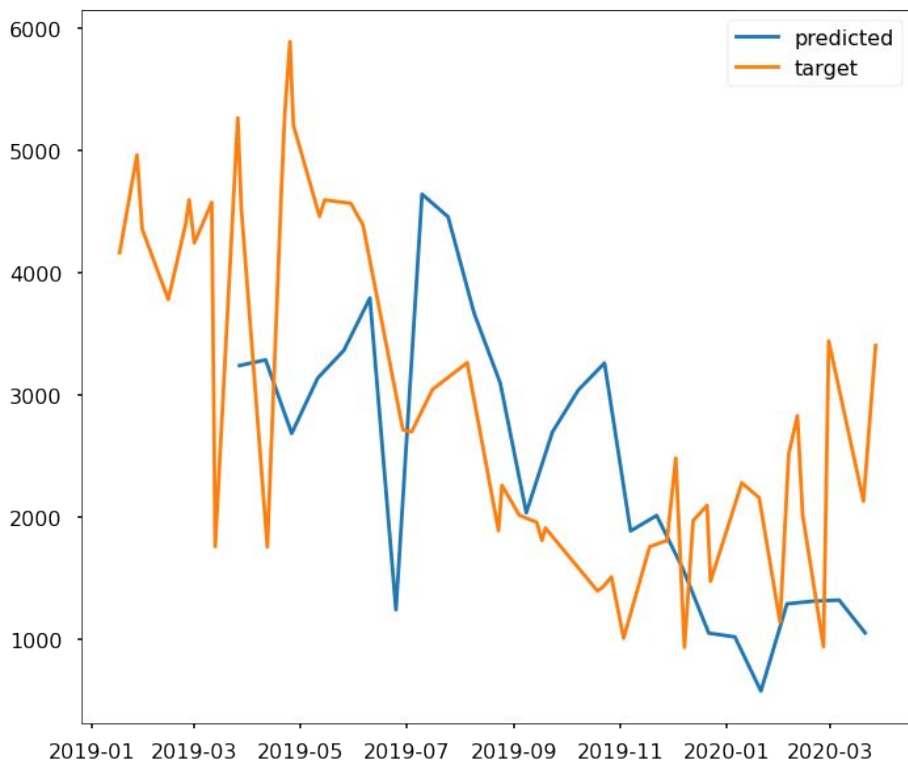


S2B08 Prophet - 45x32



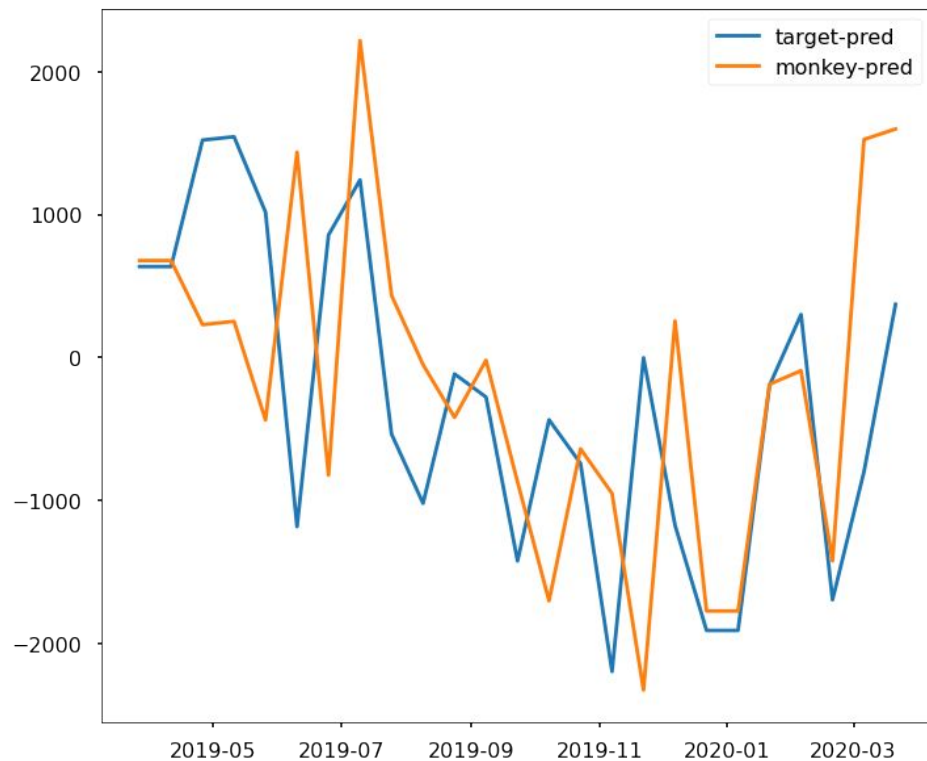
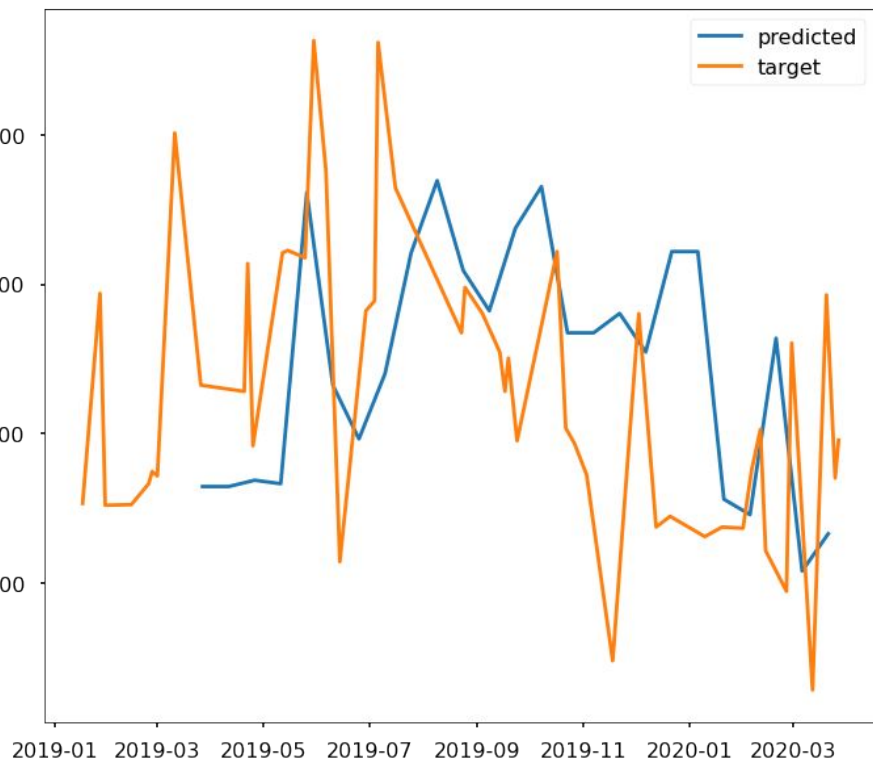
**S2B08 45x32 - Prophet**

S2B08 AutoARIMA - 45x32



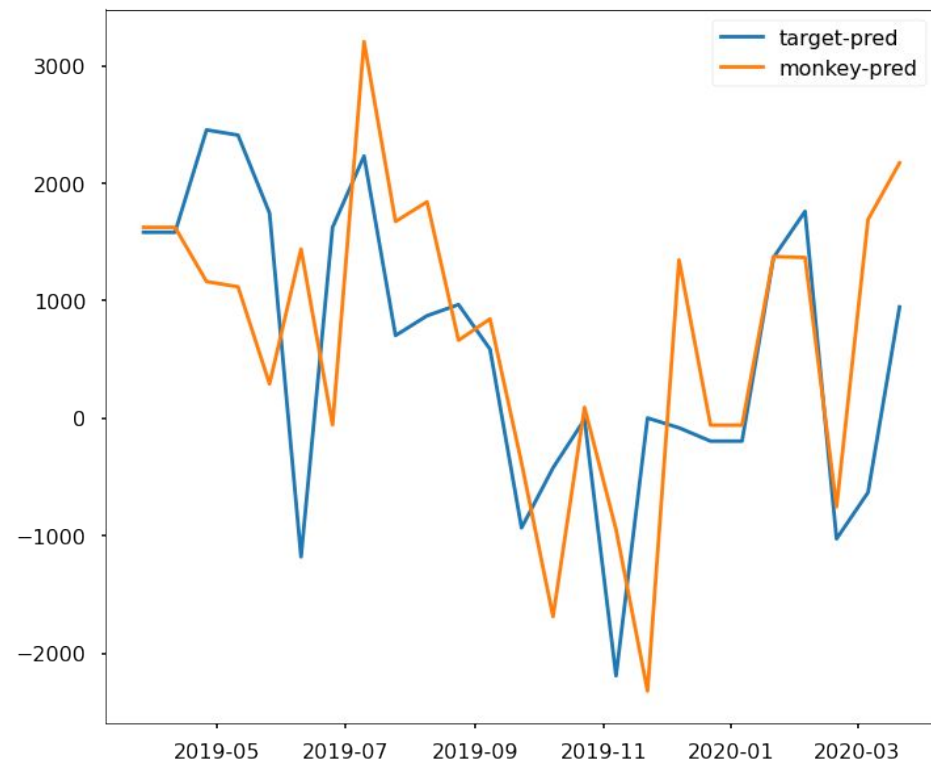
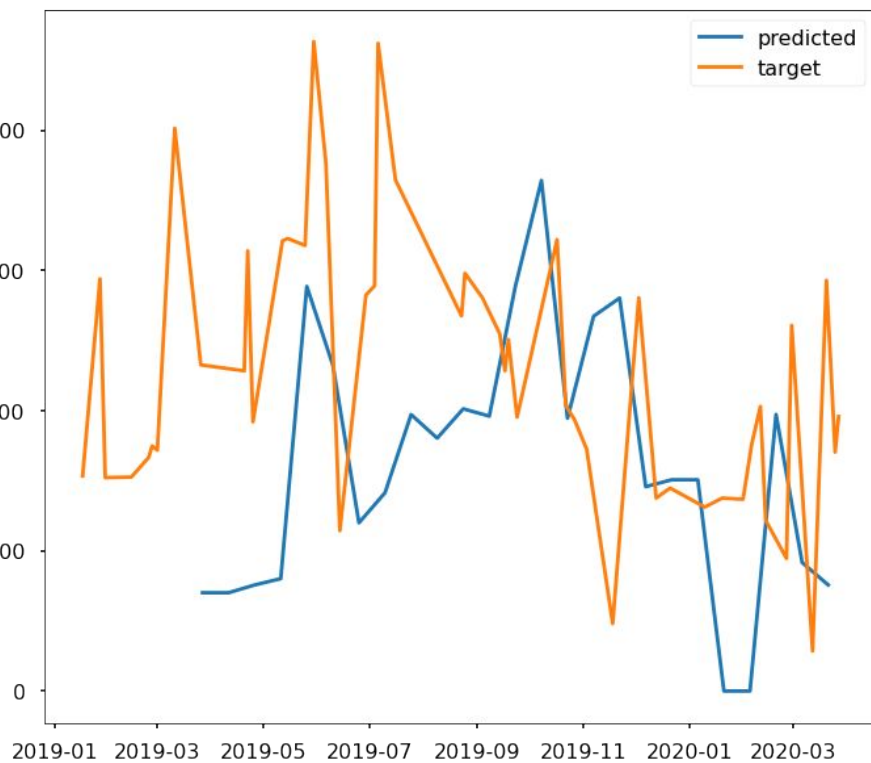
**S2B08 45x32 - AutoARIMA**

S2B08 Prophet - 25x16



**S2B08 25x16 - Prophet**

S2B08 AutoARIMA - 25x16



**S2B08 25x16 - AutoARIMA**