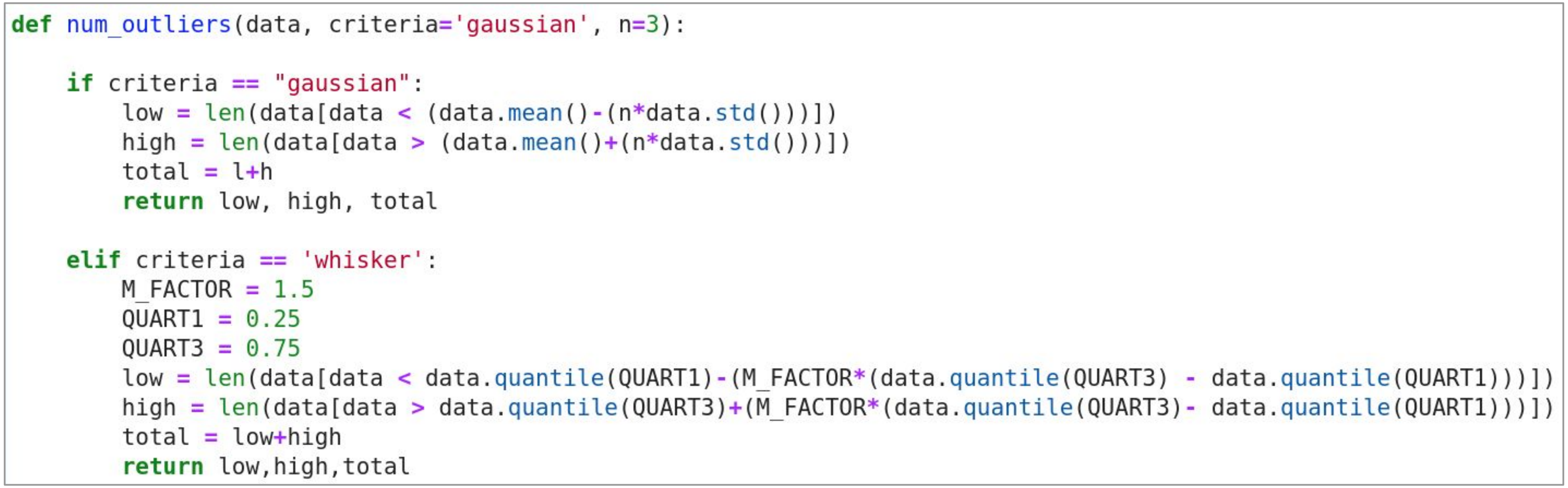
Effective Code Commenting

Analytics Vidhya

Code Commenting



```python
def num_outliers(data, criteria='gaussian', n=3):

    if criteria == "gaussian":
        low = len(data[data < (data.mean()-(n*data.std()))])
        high = len(data[data > (data.mean()+(n*data.std()))])
        total = l+h
        return low, high, total

    elif criteria == 'whisker':
        M_FACTOR = 1.5
        QUART1 = 0.25
        QUART3 = 0.75
        low = len(data[data < data.quantile(QUART1)-(M_FACTOR*(data.quantile(QUART3) - data.quantile(QUART1)))])
        high = len(data[data > data.quantile(QUART3)+(M_FACTOR*(data.quantile(QUART3)- data.quantile(QUART1)))])
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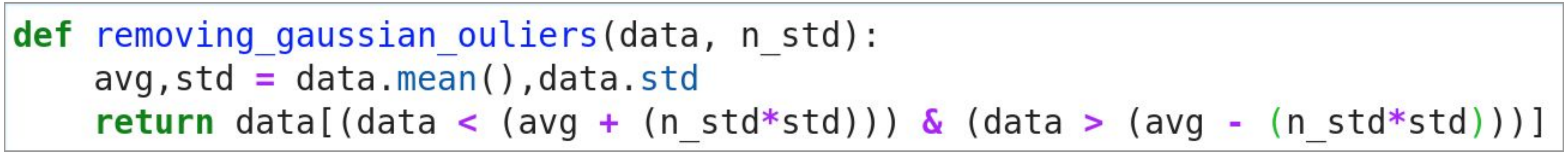

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def removing_gaussian_ouliers(data, n_std):
    avg,std = data.mean(),data.std
    return data[(data < (avg + (n_std*std))) & (data > (avg - (n_std*std)))]
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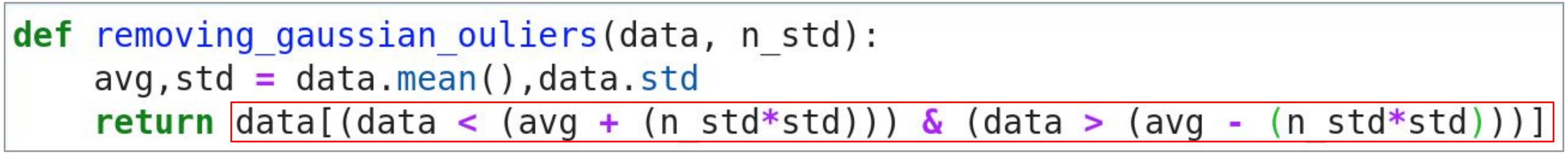

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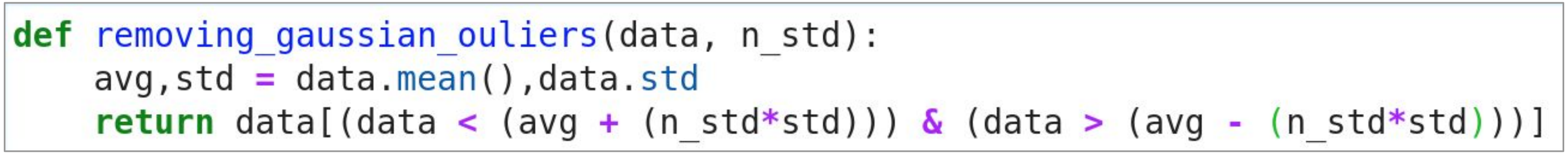

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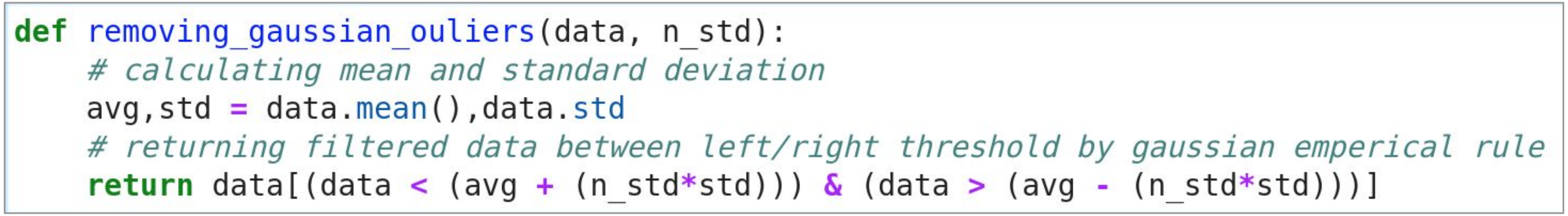

```python
def removing_gaussian_ouliers(data, n_std):
    # calculating mean and standard deviation
    avg,std = data.mean(),data.std
    # returning filtered data between left/right threshold by gaussian emperical rule
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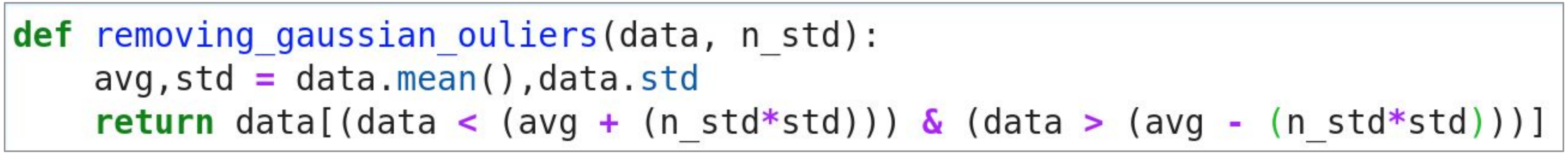

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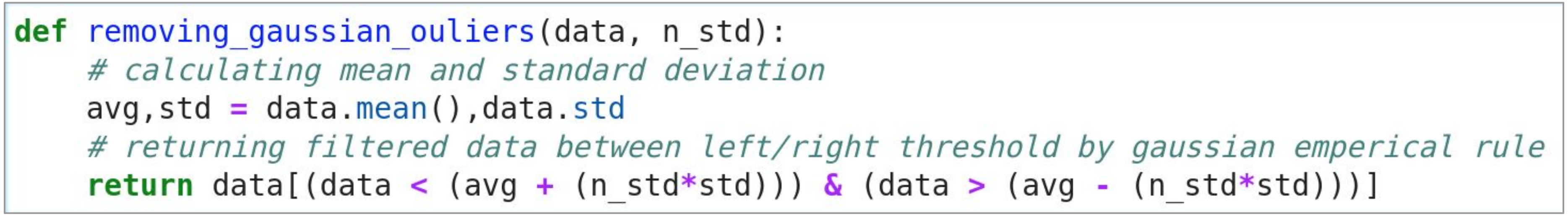

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Redundant and time taking?

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Redundant and time taking?

Yes and No

Code Commenting

When Writing Code:

- Code should be self explanatory and readable

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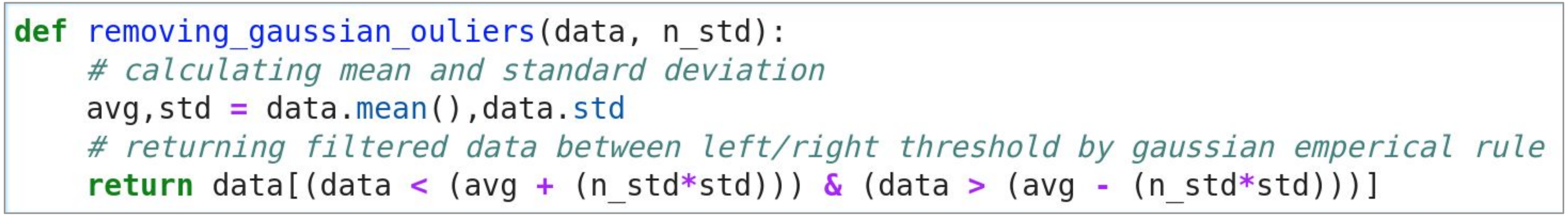
Comments should be a last resort, but necessary if code is complex

Analytics Vidhya

Code Commenting



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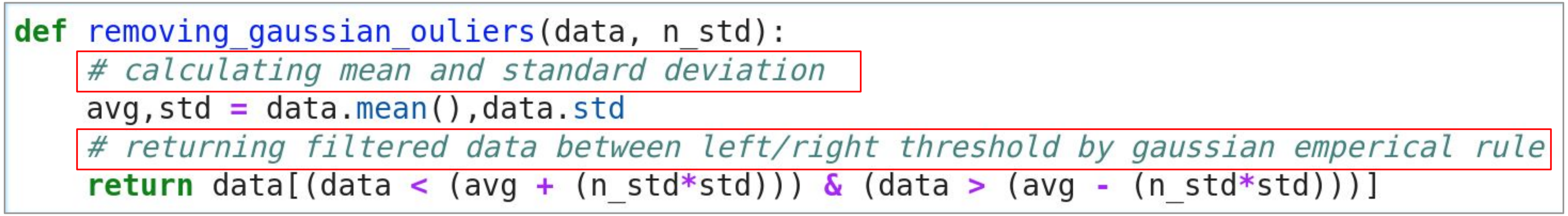

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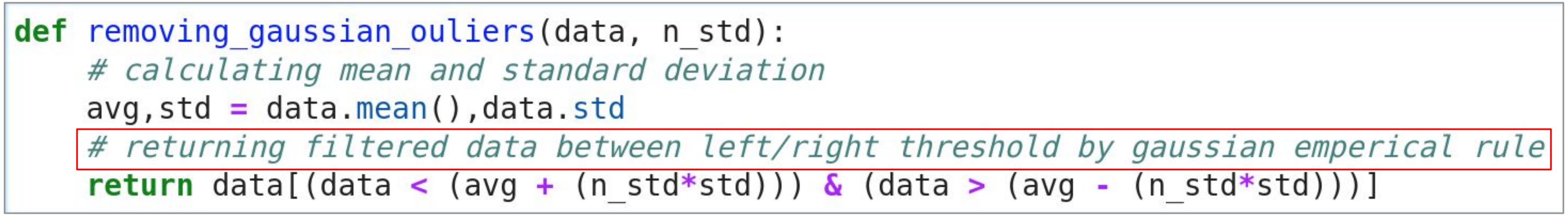

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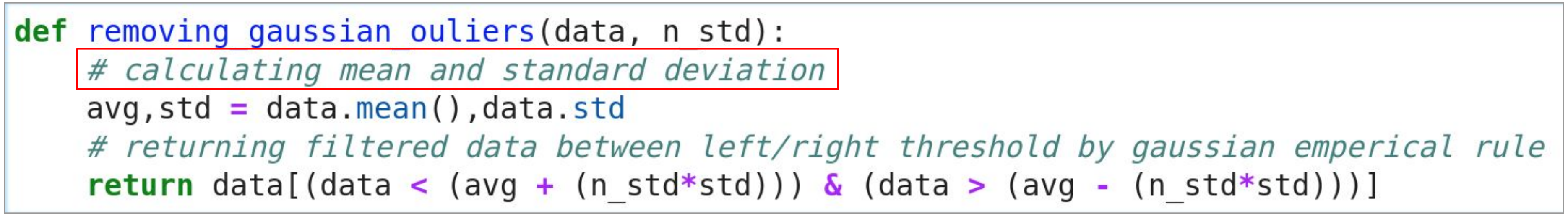

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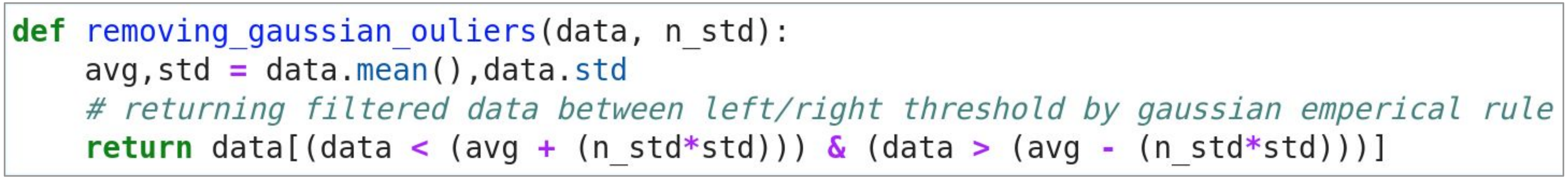

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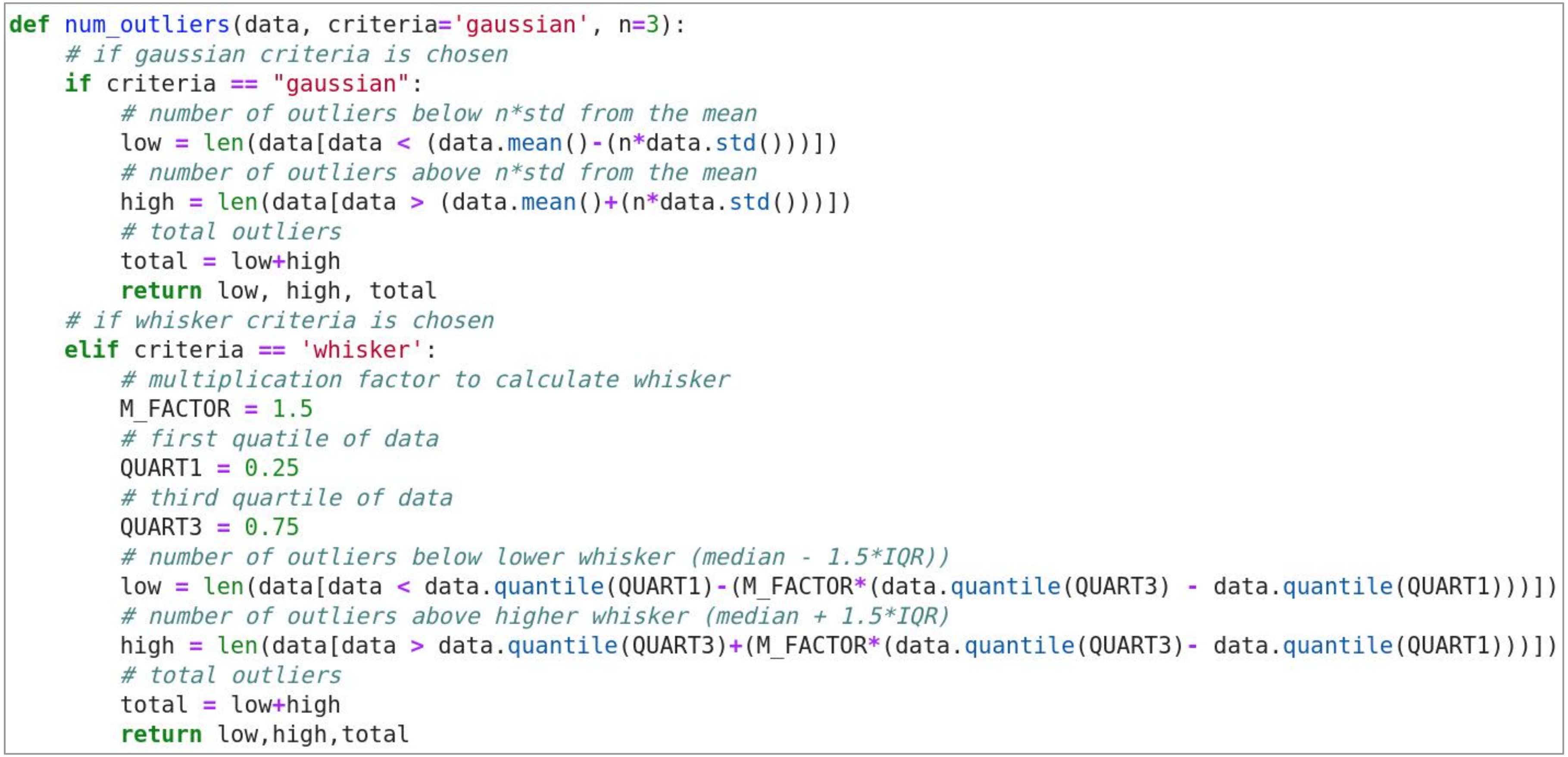

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    # if gaussian criteria is chosen
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        # total outliers
        total = low+high
        return low, high, total
    # if whisker criteria is chosen
    elif criteria == 'whisker':
        # multiplication factor to calculate whisker
        M_FACTOR = 1.5
        # first quatile of data
        QUART1 = 0.25
        # third quartile of data
        QUART3 = 0.75
        # number of outliers below lower whisker (median - 1.5*IQR))
        low = len(data[data < data.quantile(QUART1)-(M_FACTOR*(data.quantile(QUART3) - data.quantile(QUART1)))])
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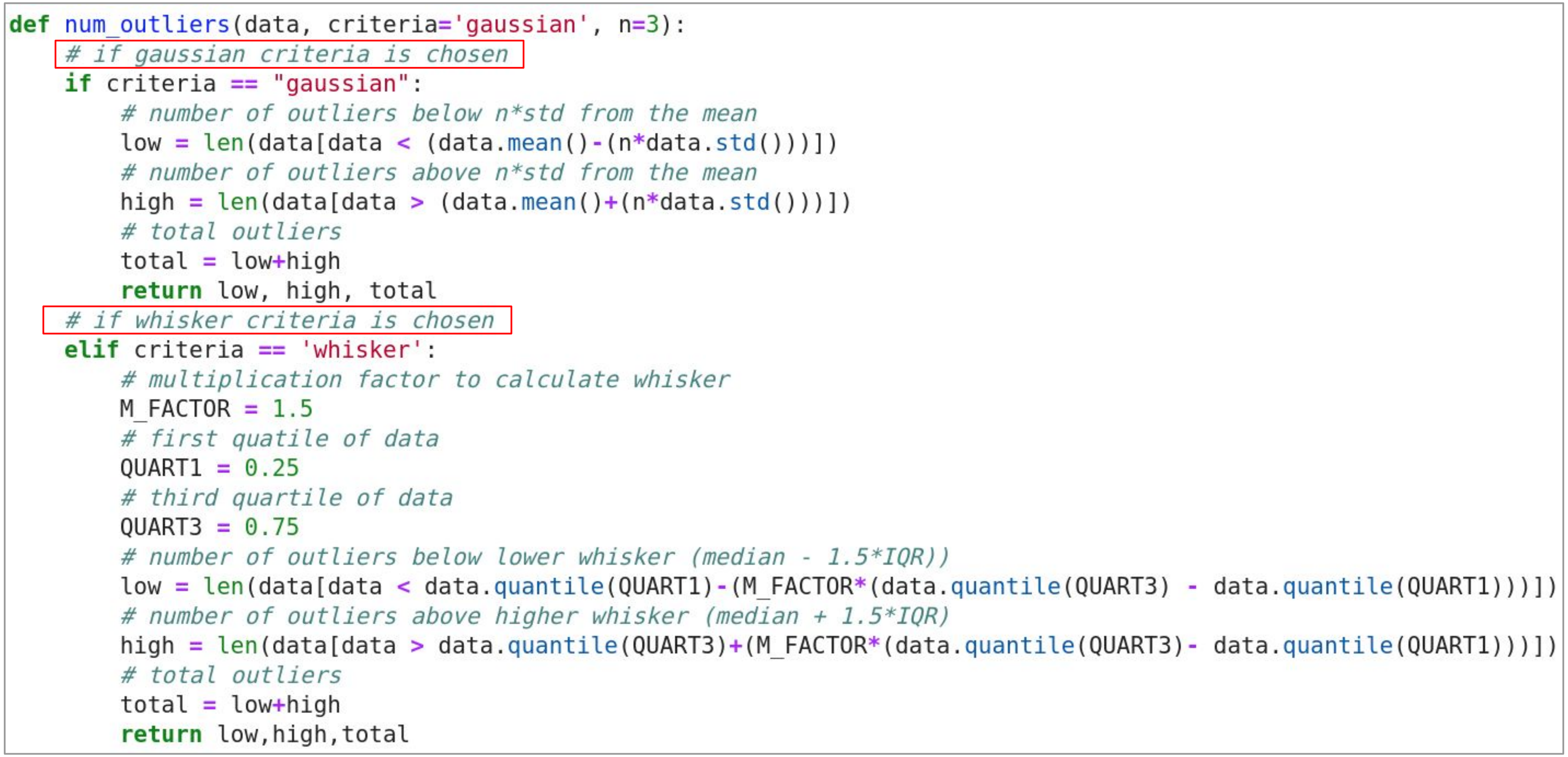

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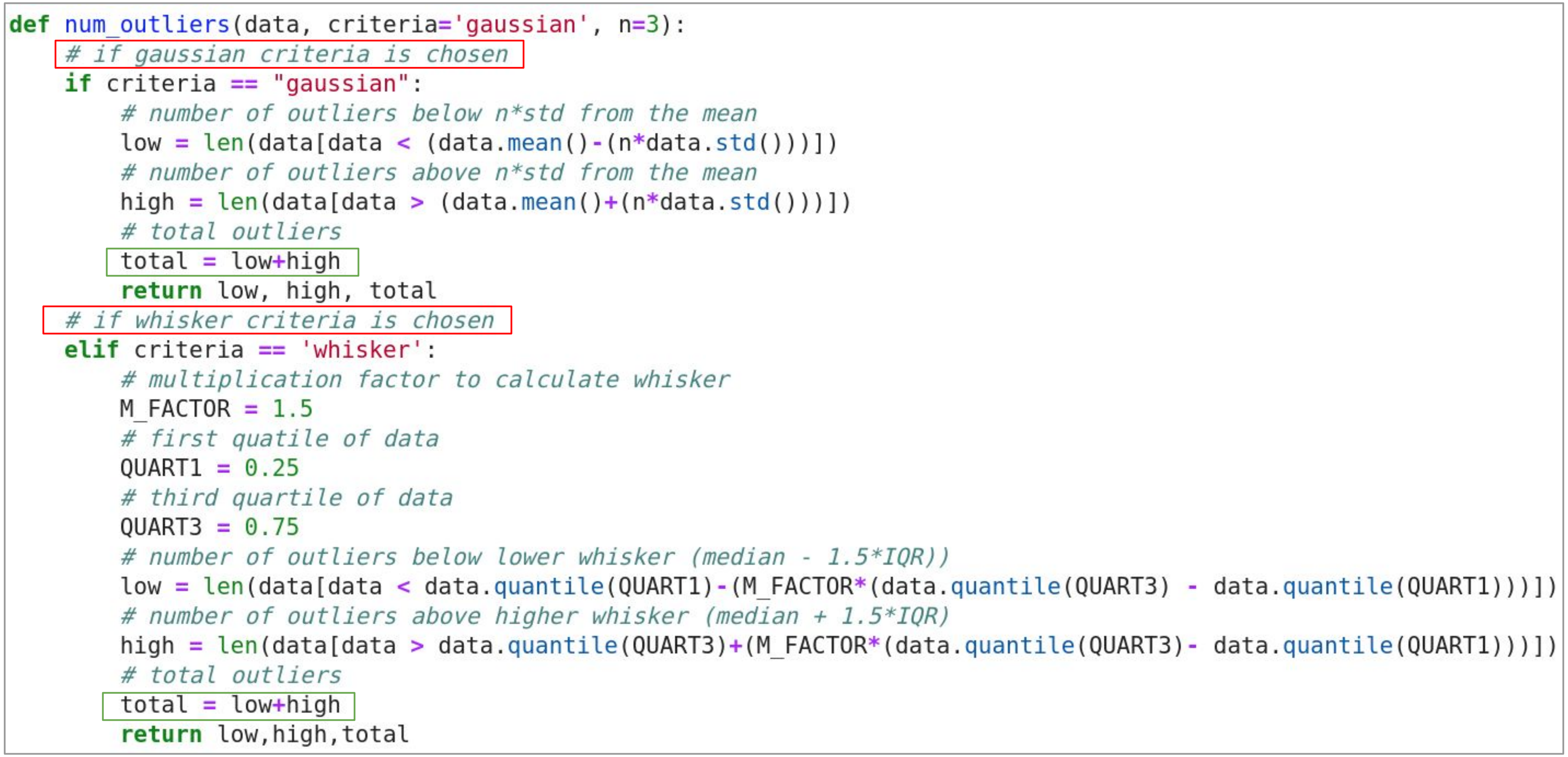

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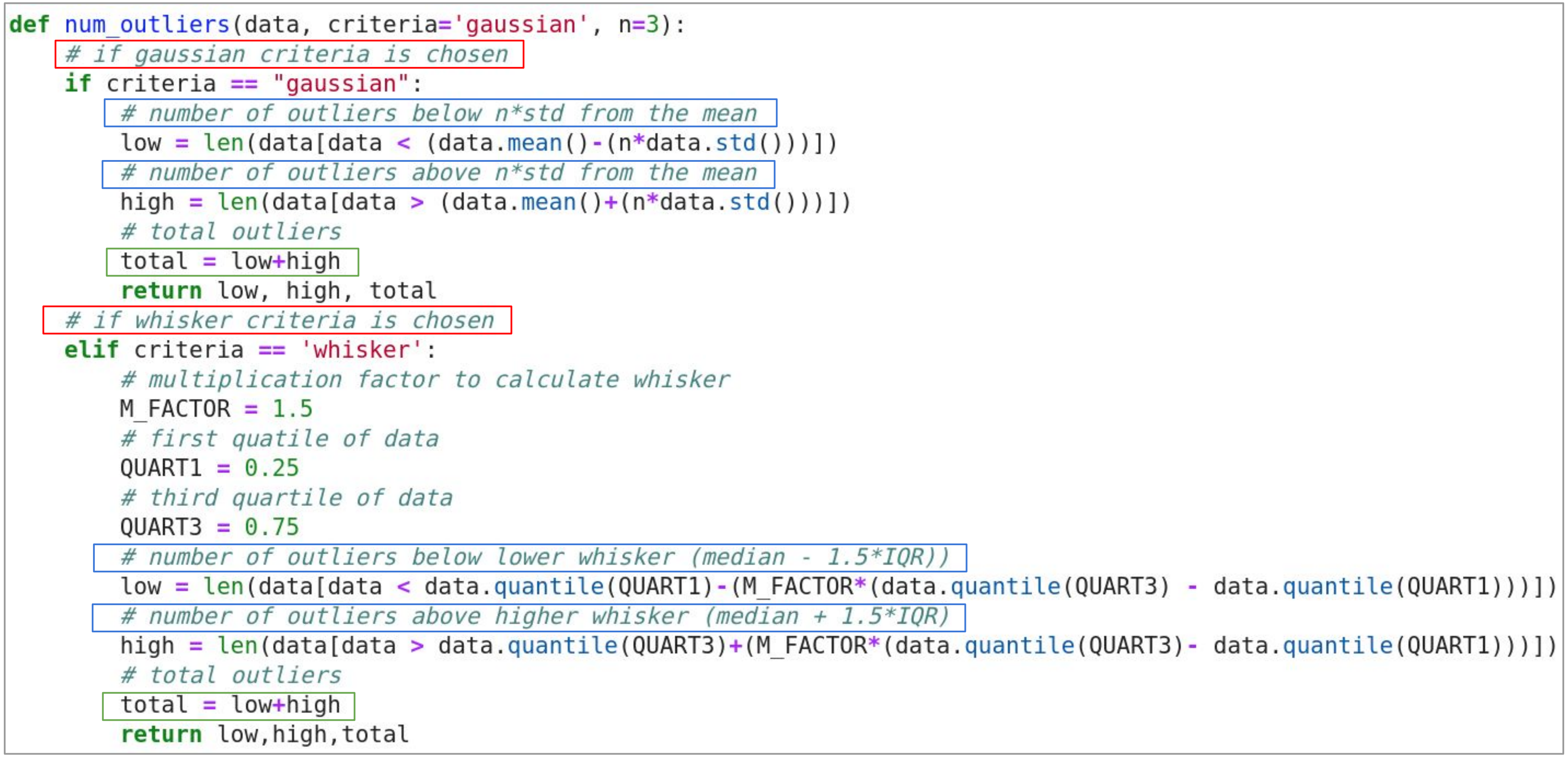

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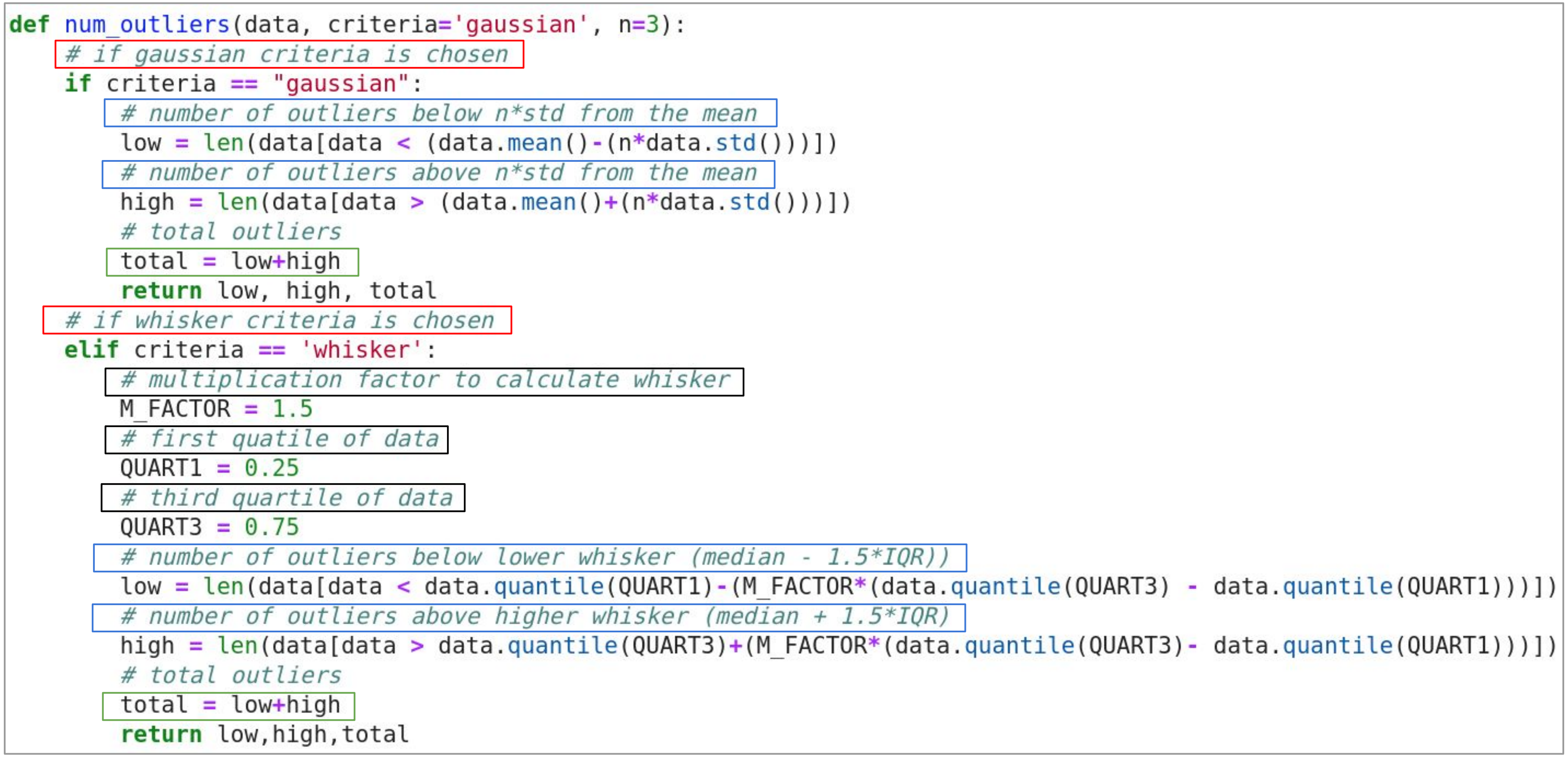

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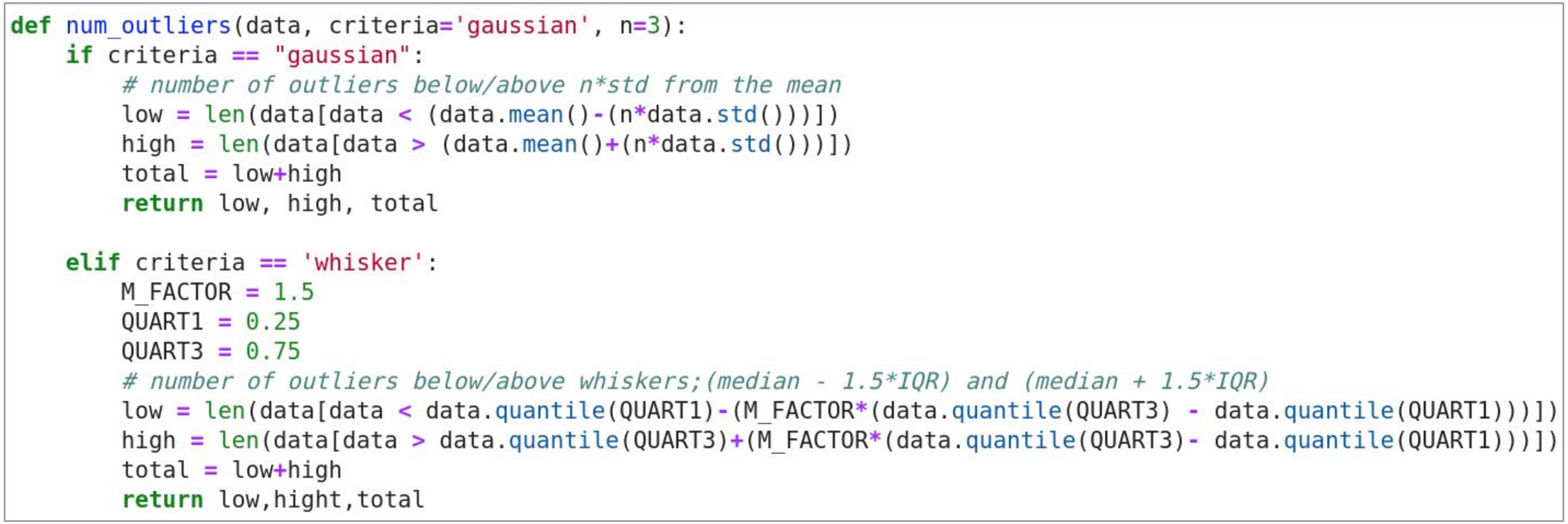

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def num_outliers(data, criteria='gaussian', n=3):
    if criteria == "gaussian":
        # number of outliers below/above n*std from the mean
        low = len(data[data < (data.mean()-(n*data.std()))])
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        total = low+high
        return low, high, total

    elif criteria == 'whisker':
        M_FACTOR = 1.5
        QUART1 = 0.25
        QUART3 = 0.75
        # number of outliers below/above whiskers;(median - 1.5*IQR) and (median + 1.5*IQR)
        low = len(data[data < data.quantile(QUART1)-(M_FACTOR*(data.quantile(QUART3) - data.quantile(QUART1)))])
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Thank You

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