1.6 Canvass Inspection Violations

- 1.6.1. Violation Code Monthly Hit Rates
- 1.6.2. Before and After Model Deployment
- 1.6.3. Number of Inspections per Month by Inspector Cluster

Code hiding script from Damian Kao (http://blog.nextgenetics.net/?e=102).

Out[1]: Code hidden for easier reading: toggle on/off.

Load Data

```
Read 50462 records.
Kept 47639 records.

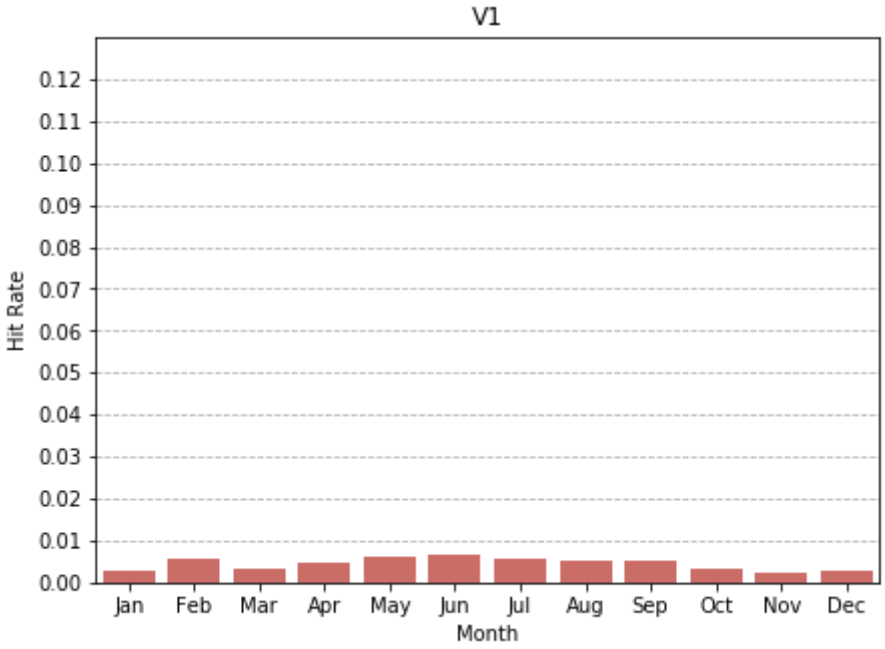

Date Range: 2010-01-04 to 2017-12-29
```

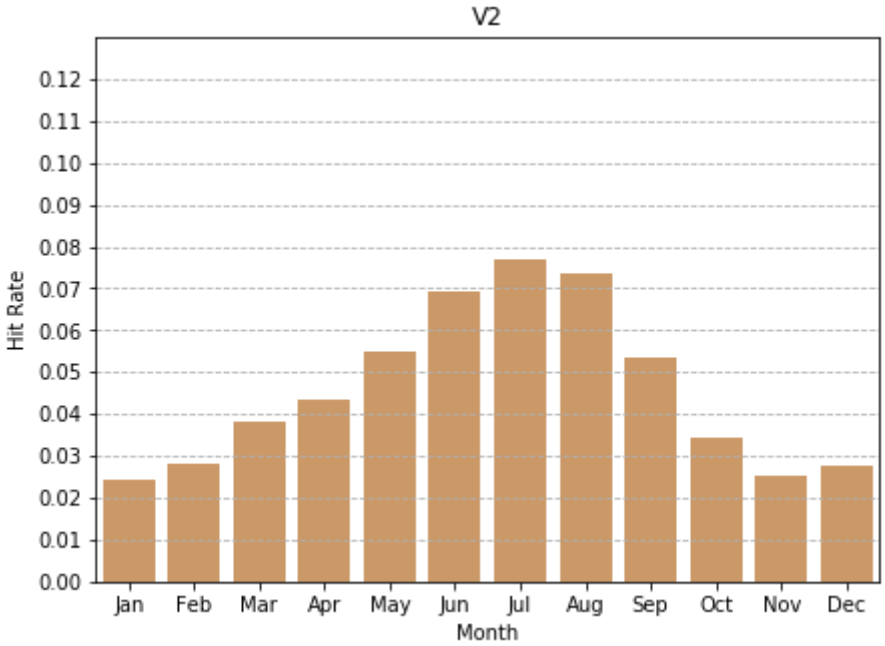
Out[6]:

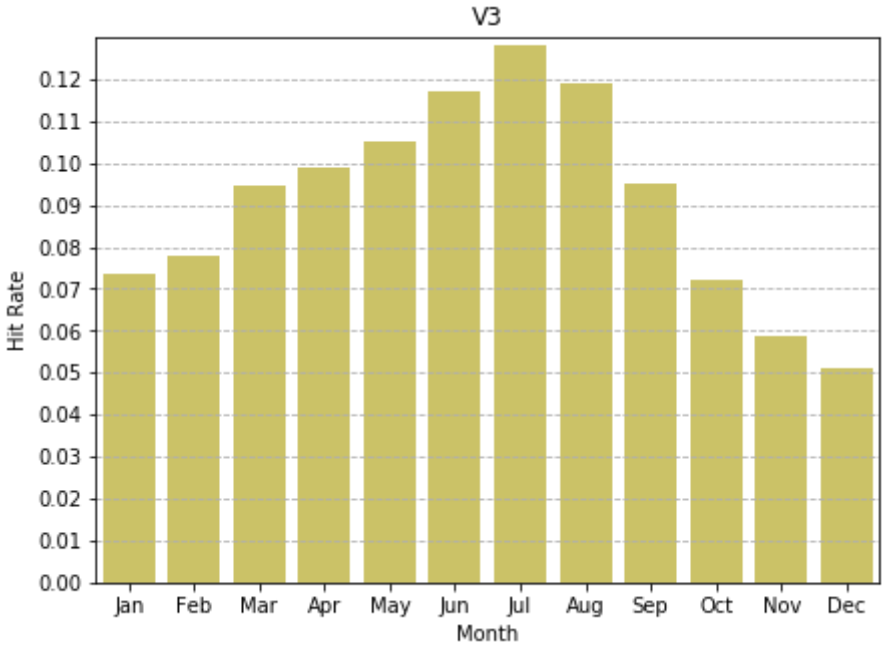
	Code	Count	Rate	Rank
2	V3	4418	0.093	1
1	V2	2233	0.047	2
7	V8	1239	0.026	3
11	V12	1012	0.021	4
10	V11	895	0.019	5
5	V6	826	0.017	6
8	V9	307	0.006	7
9	V10	233	0.005	8
3	V4	227	0.005	9
0	V1	219	0.005	10
12	V13	90	0.002	11
6	V7	52	0.001	12
13	V14	37	0.001	13
4	V5	8	0.000	14

```
The maximum monthly rate is 0.128.
```

Violation Code Monthly Hit Rates


V1
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


V2
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


V3
Hit Rate
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
0.12
Jan
Feb
Mar
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Jun
Jul
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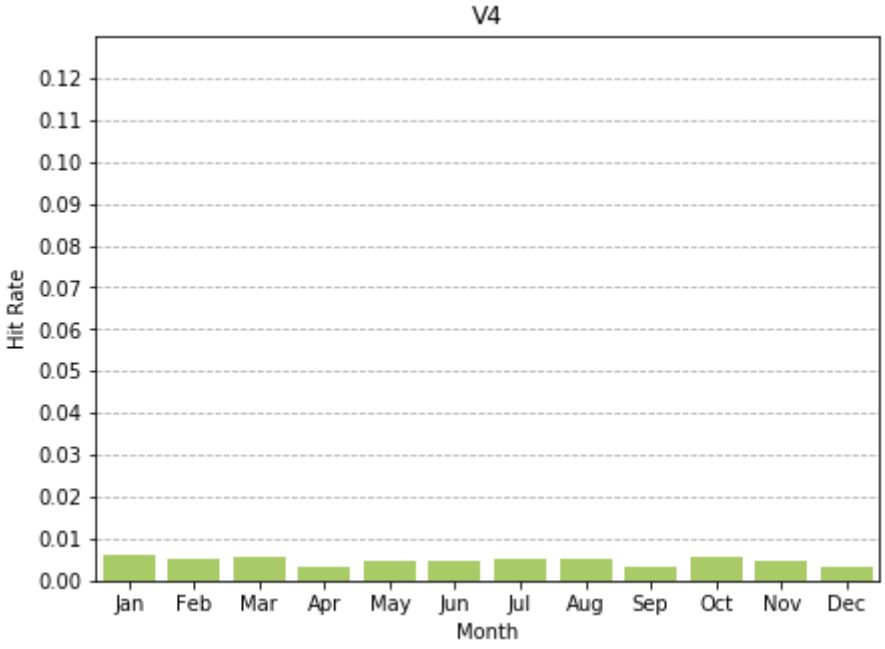
Sep
Oct
Nov
Dec
Month


V4
Hit Rate
0.00
0.01
0.02
0.03
0.04
0.05
0.06
0.07
0.08
0.09
0.10
0.11
0.12
Jan
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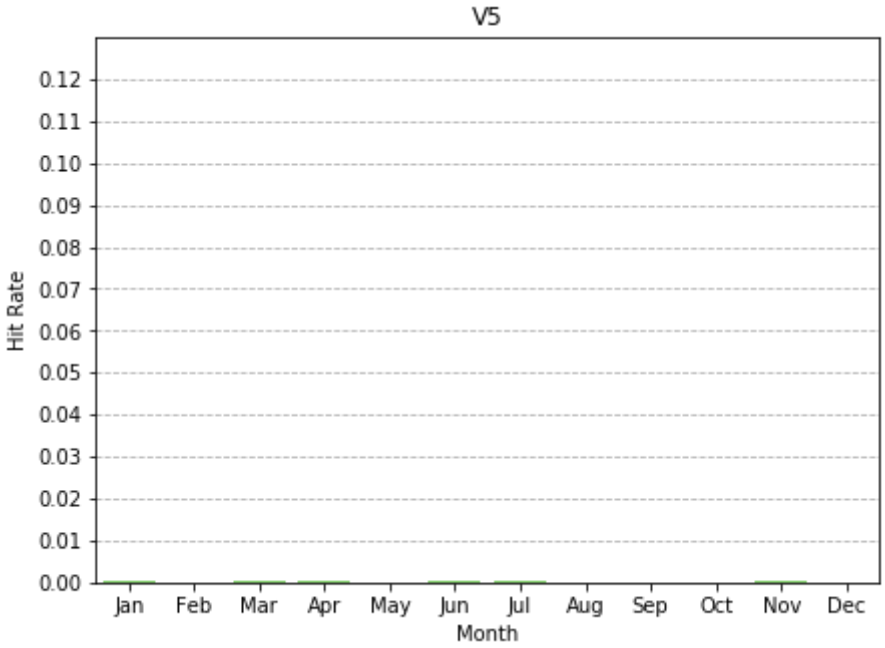
Nov
Dec
Month


V5
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
Feb
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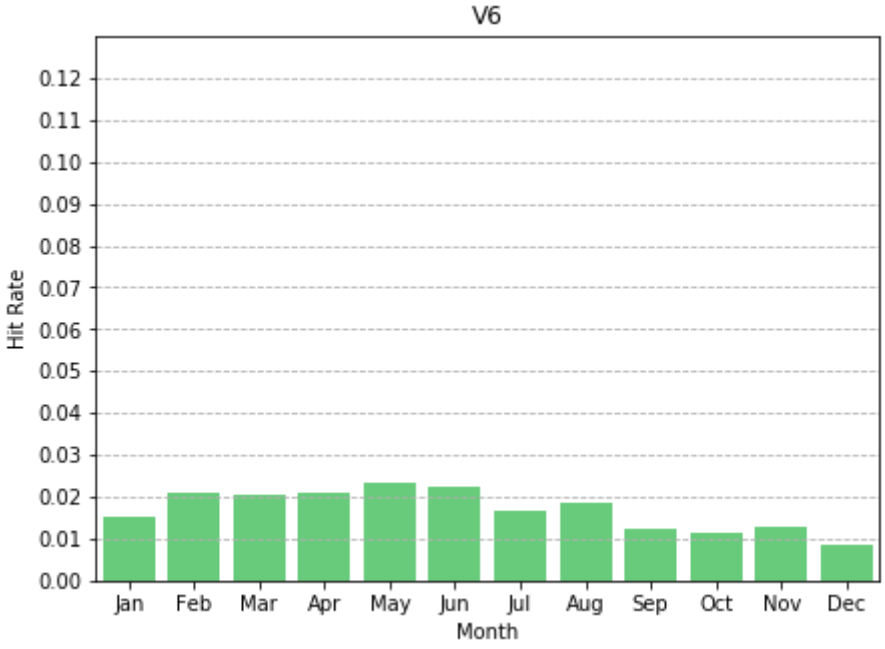
Oct
Nov
Dec
Month


V6
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
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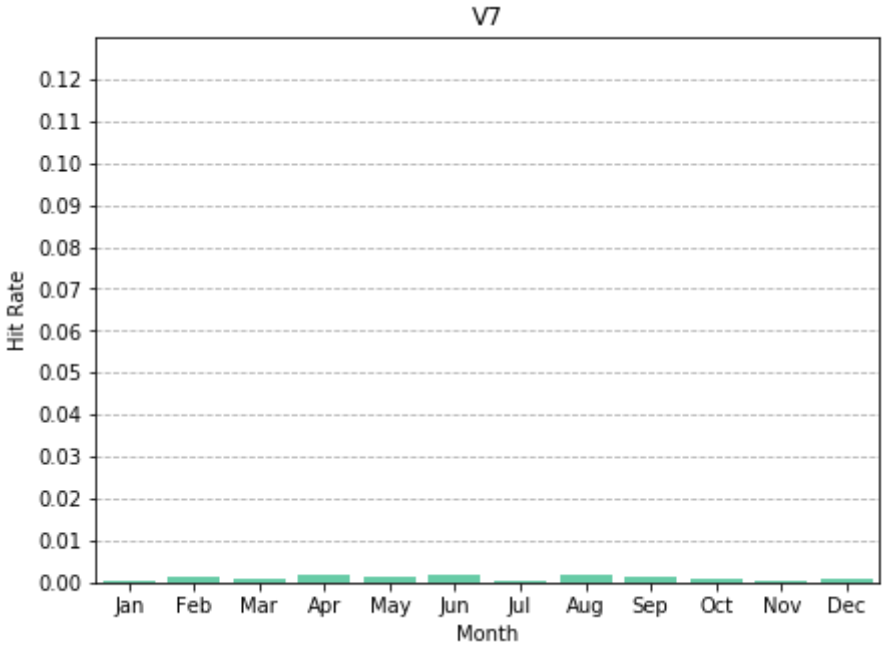
Month


V7
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
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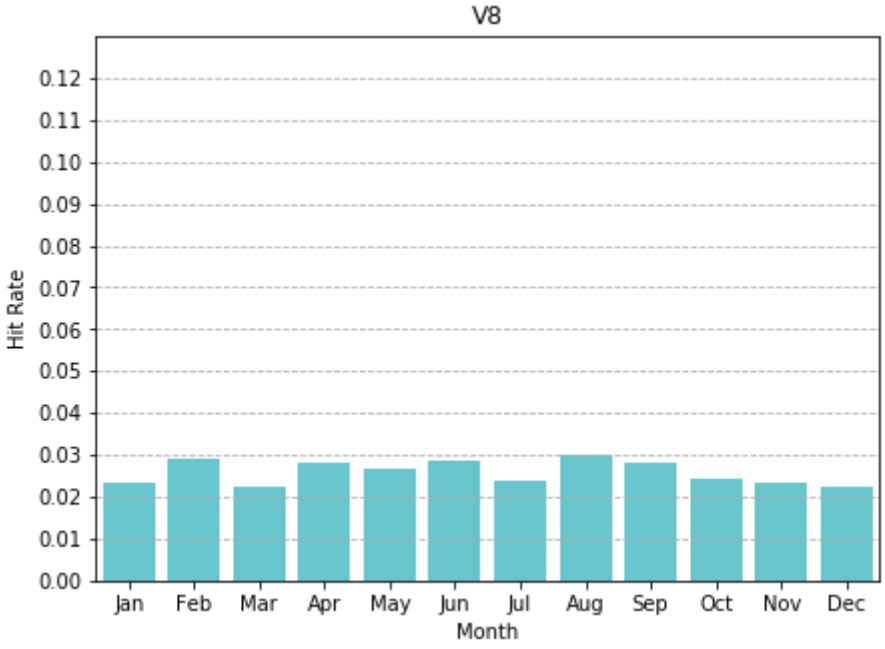
Month


V8
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
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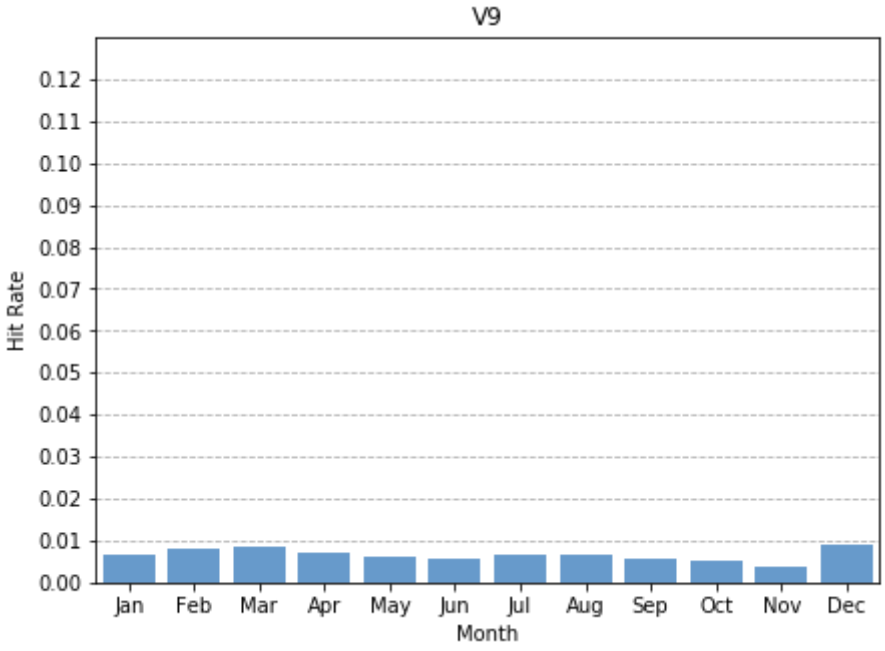
Month


V9
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
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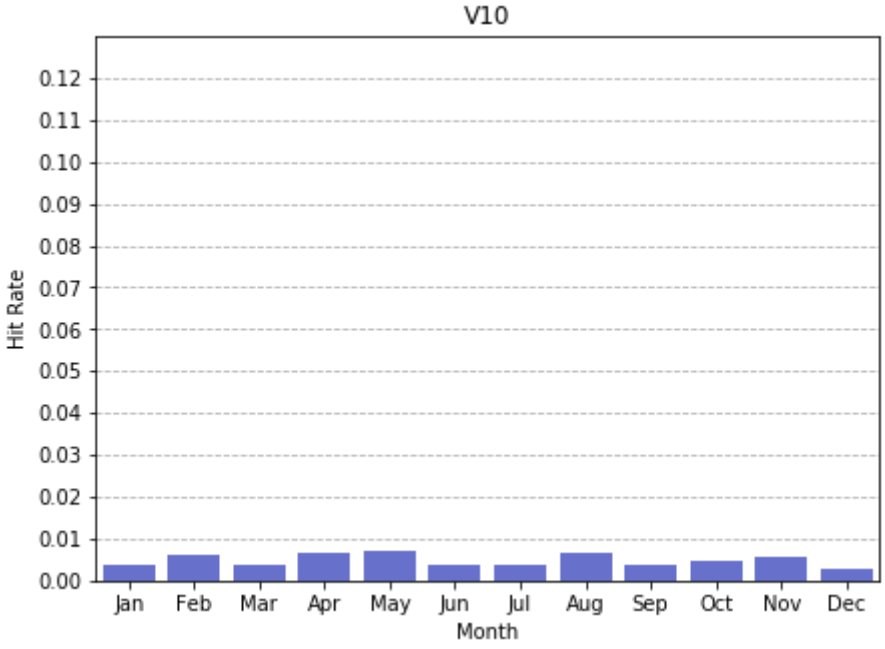
Nov
Dec
Month


V10
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
Feb
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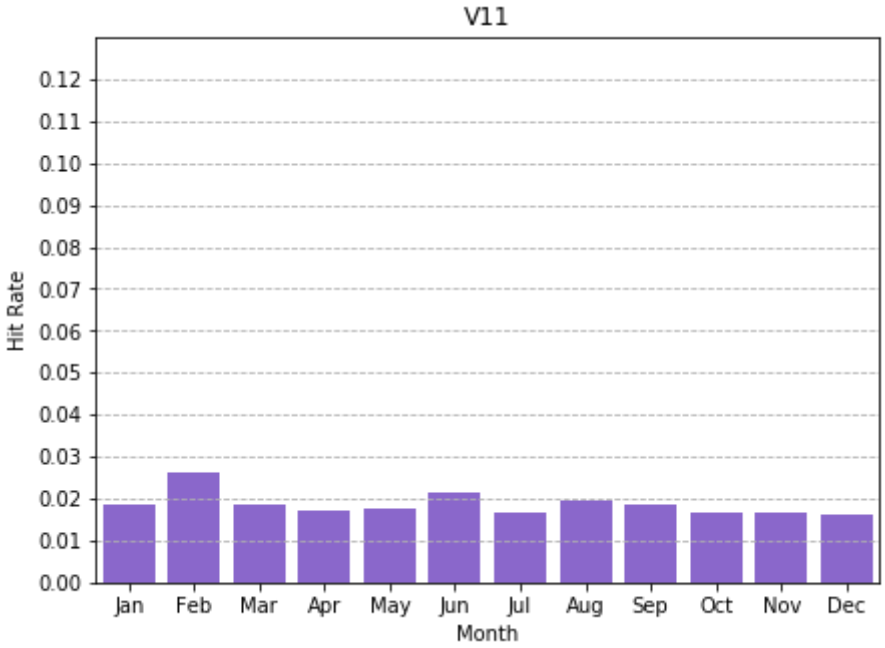
Month


V11
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan
Feb
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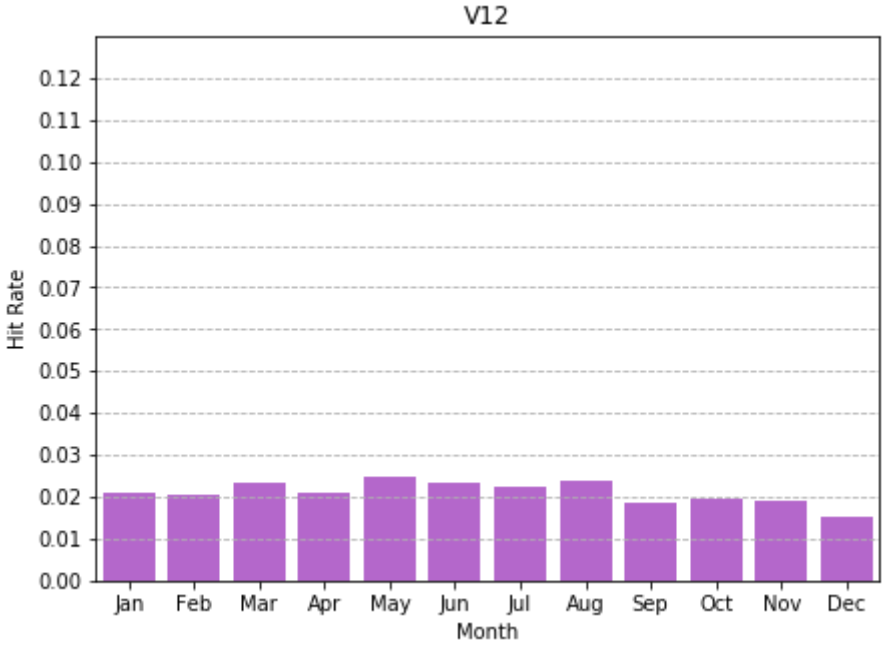
Month


V12
Hit Rate
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
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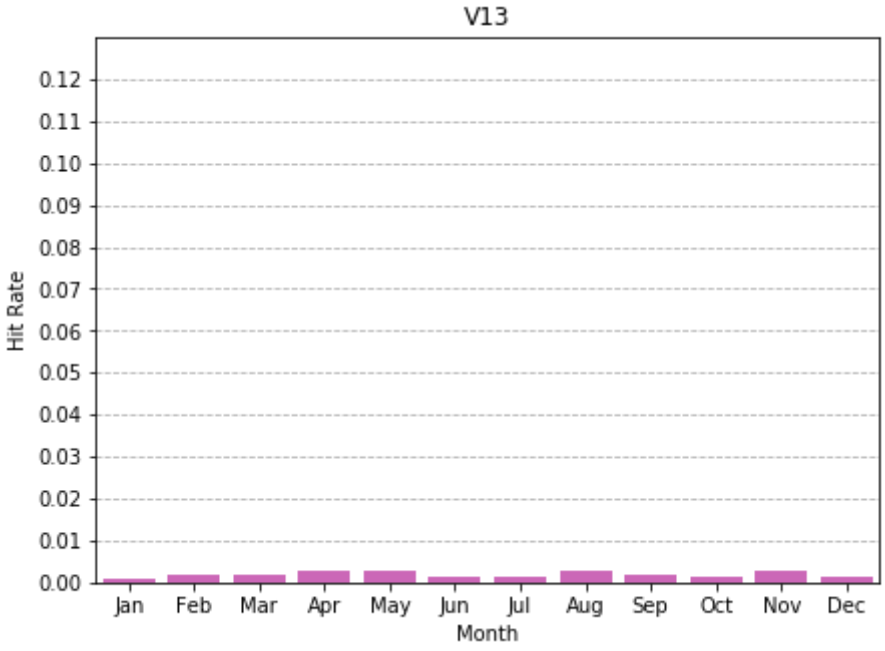
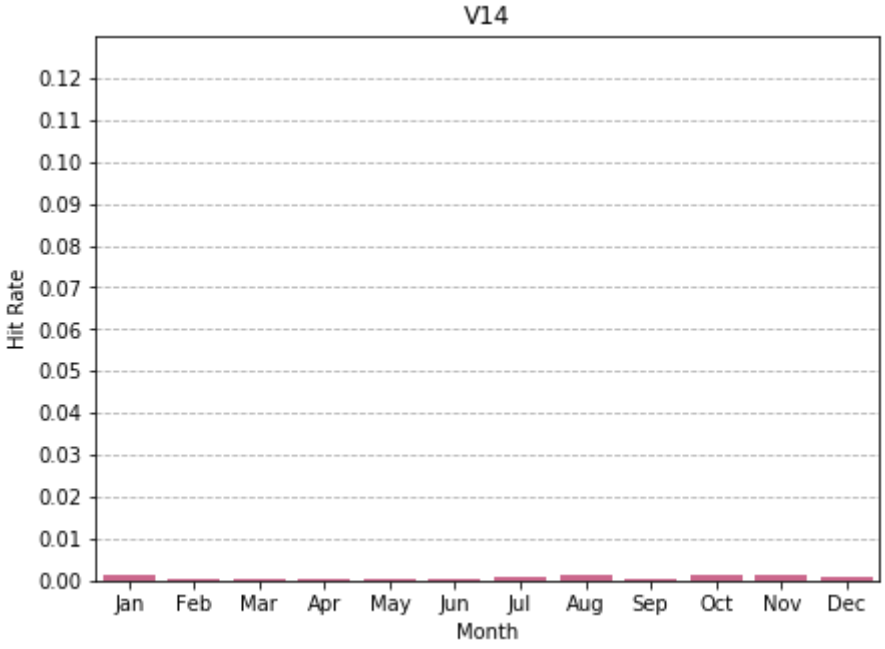
Month

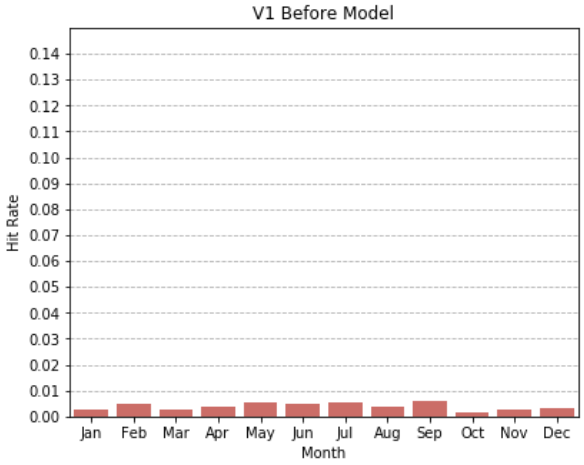


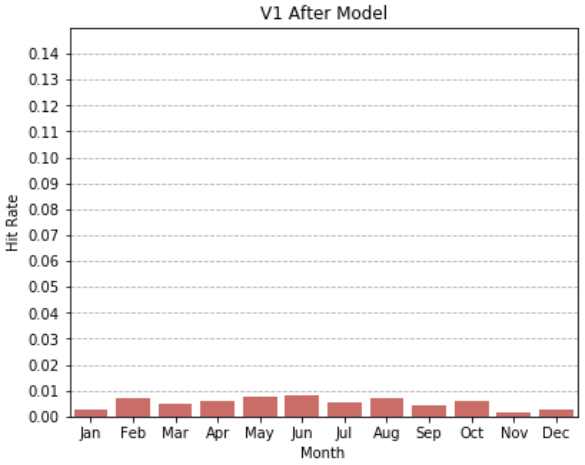


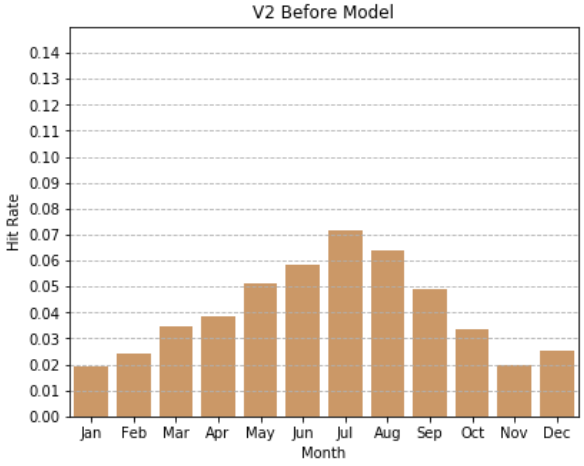
Before and After Model Deployment

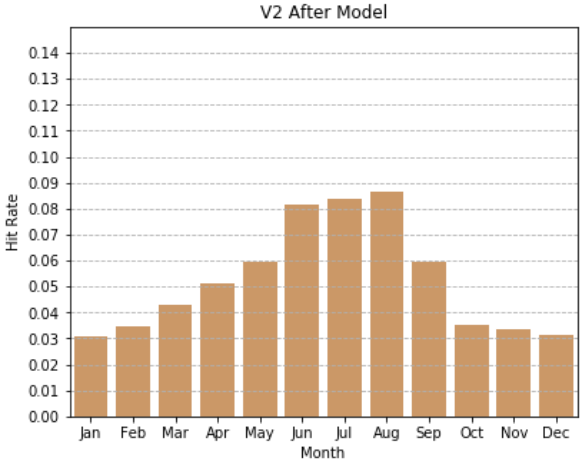
```
Found 27277 records before model deployment.
Found 20362 records after model deployment.

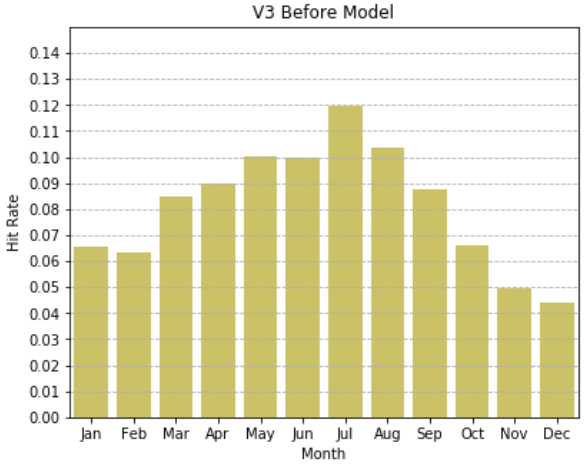
The maximum monthly rate is 0.140.
```

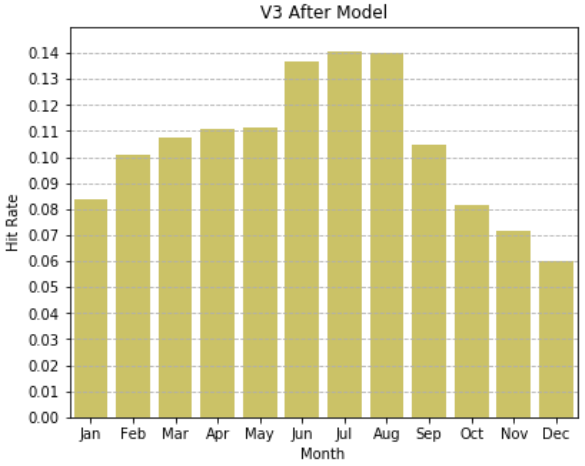

V1 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

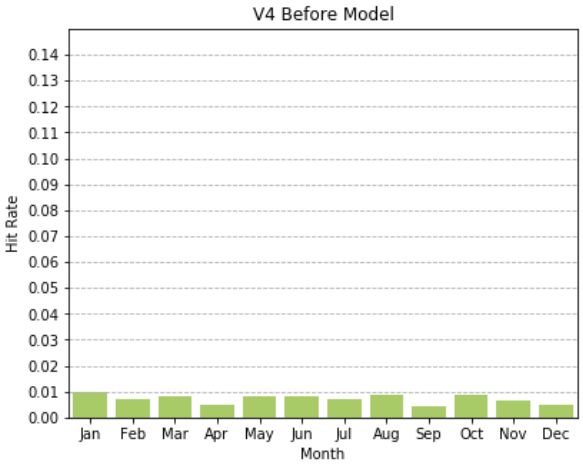

V1 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

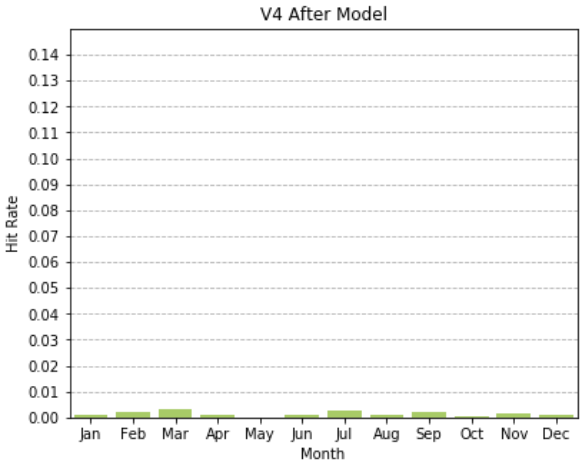

V2 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V2 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V3 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V3 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V4 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V4 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
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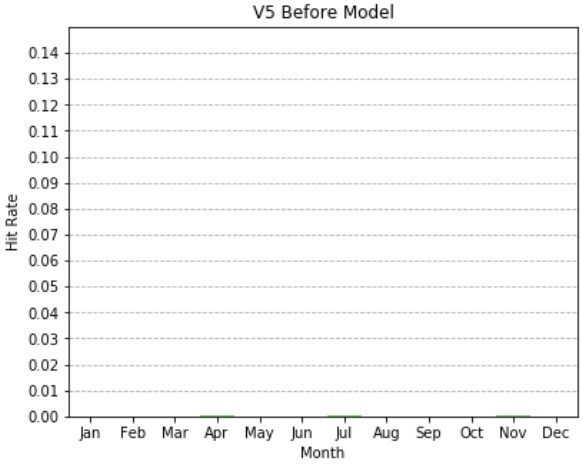
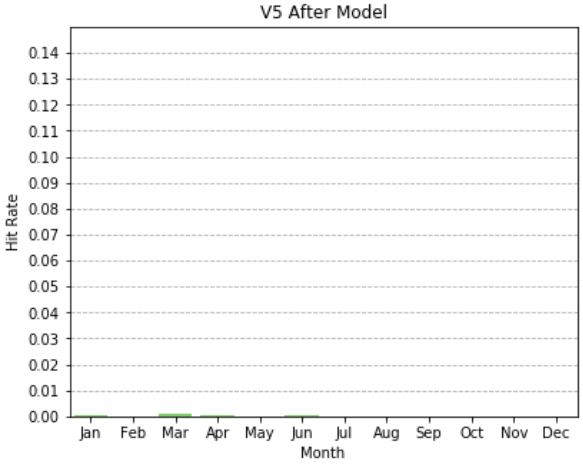
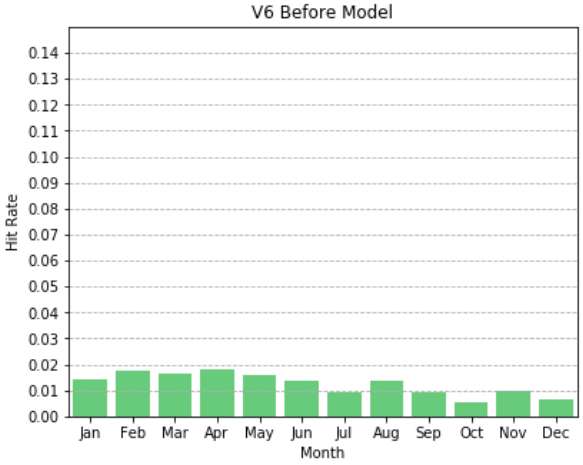
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V5 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V5 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V6 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
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0.05
0.04
0.03
0.02
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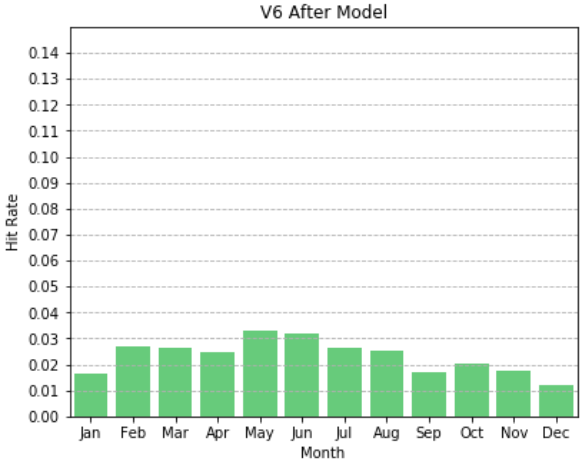
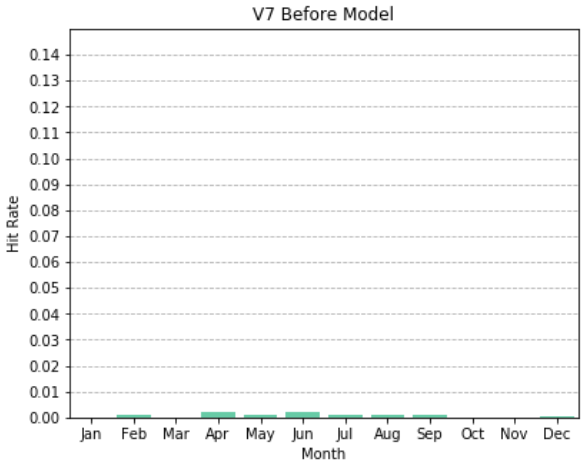
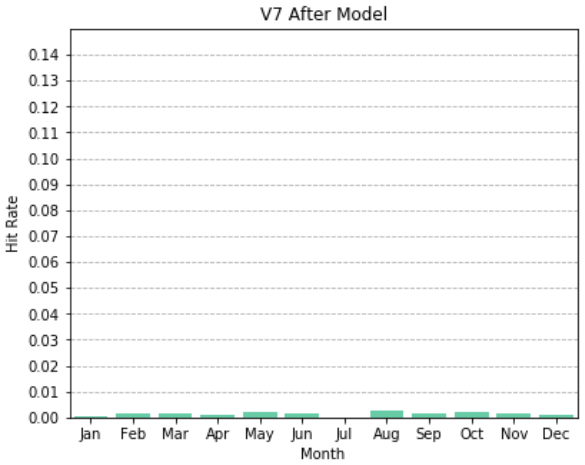
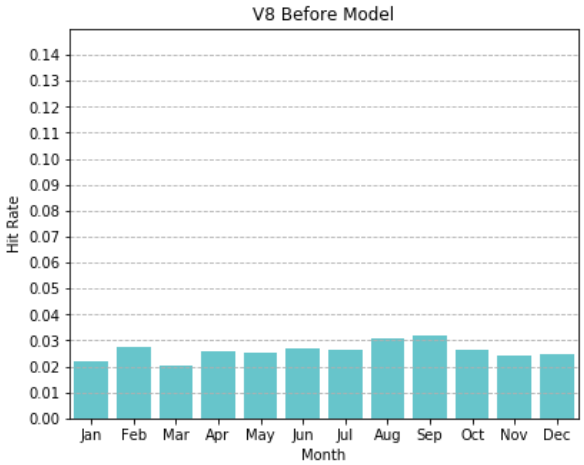
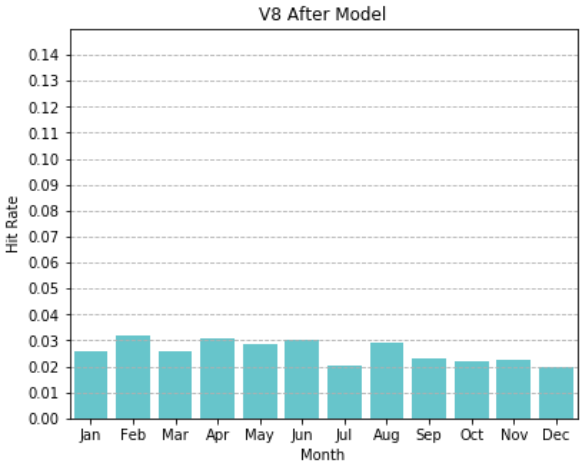
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

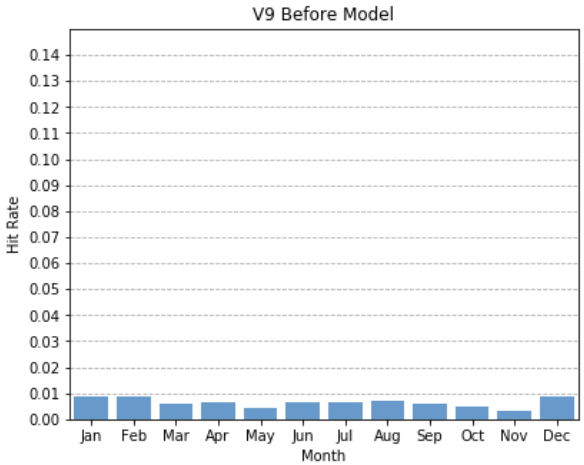

V6 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

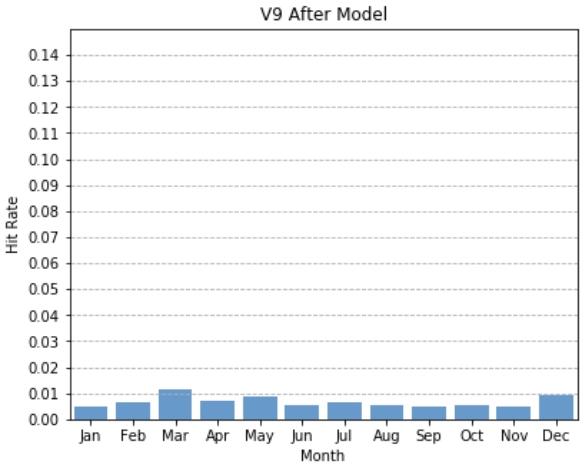

V7 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

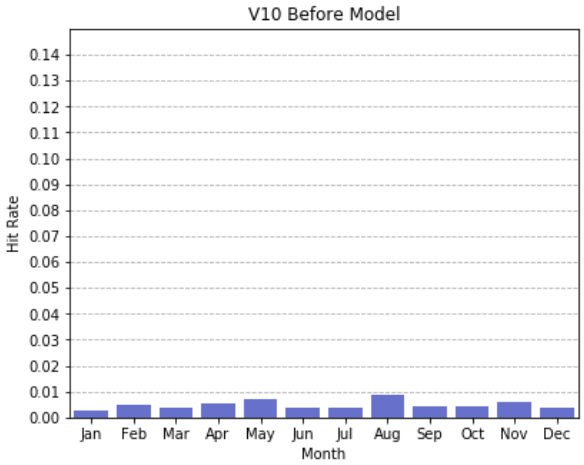

V7 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

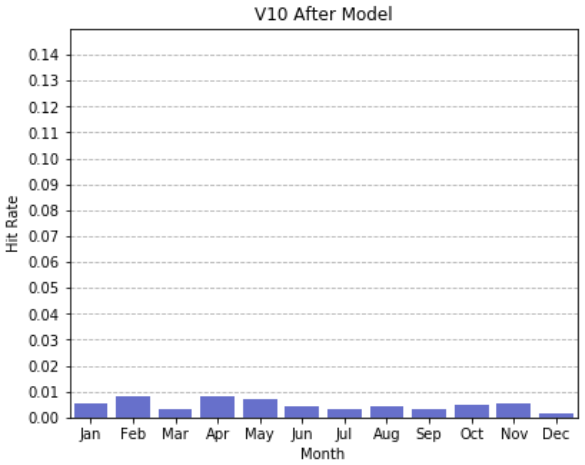

V8 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

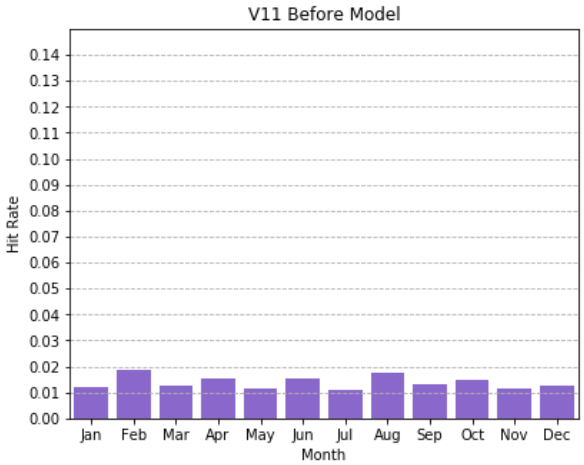

V8 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

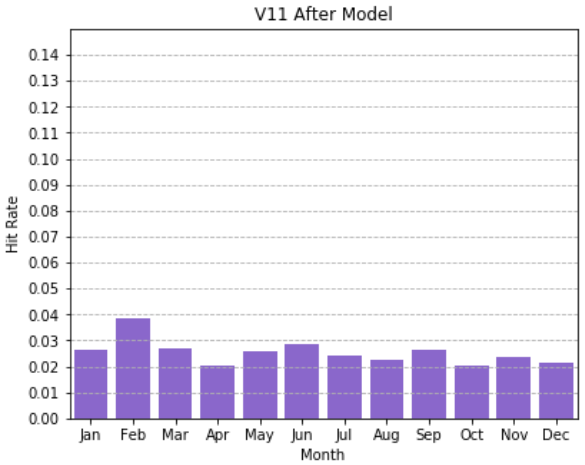

V9 Before Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

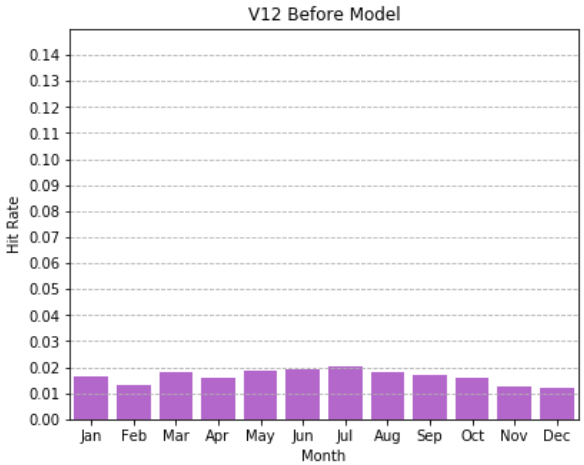

V9 After Model
Hit Rate
0.14
0.13
0.12
0.11
0.10
0.09
0.08
0.07
0.06
0.05
0.04
0.03
0.02
0.01
0.00
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

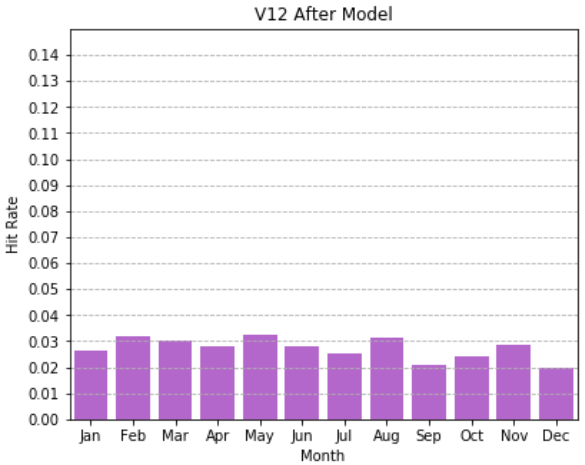

V10 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month

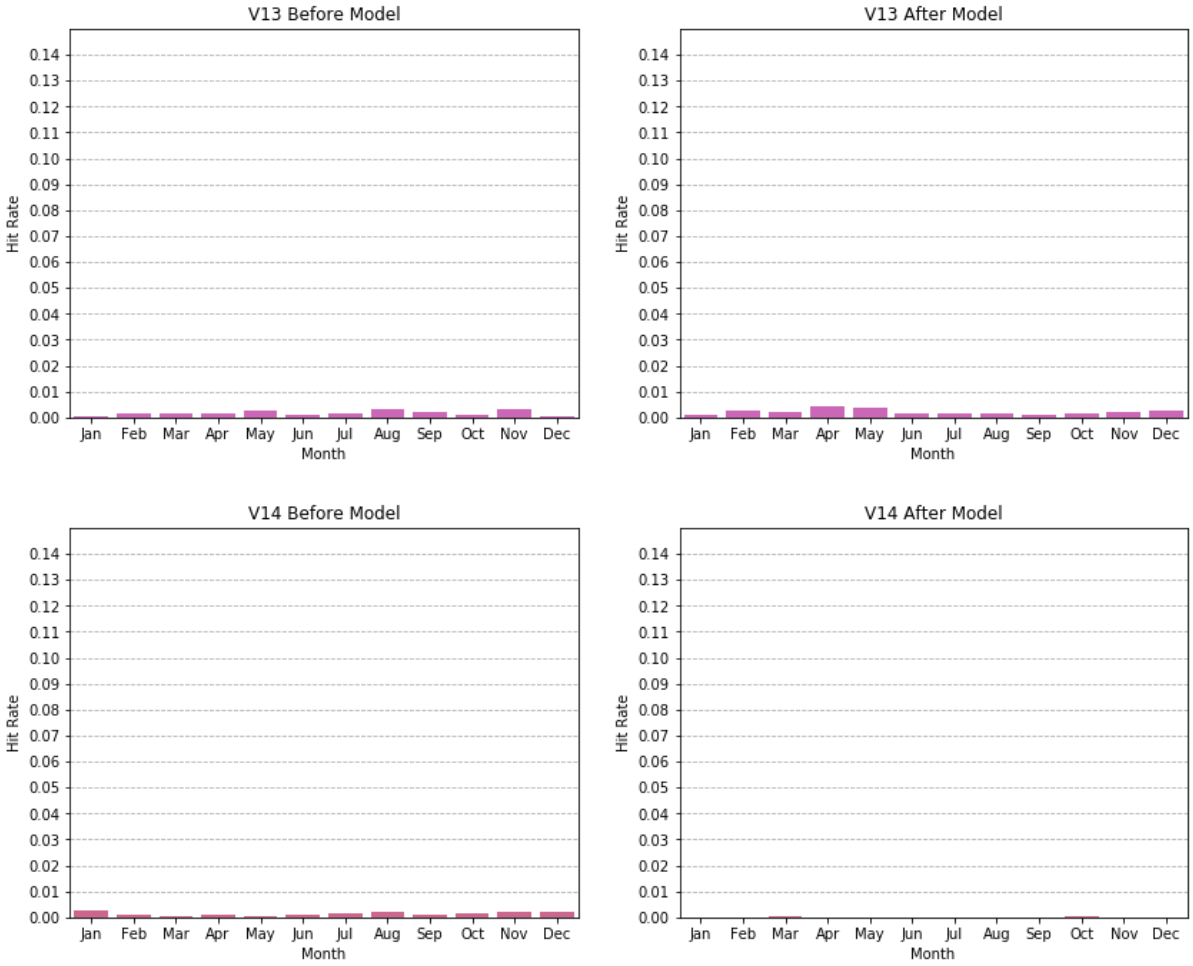

V10 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V11 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V11 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V12 Before Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month


V12 After Model
Hit Rate
0.00 0.01 0.02 0.03 0.04 0.05 0.06 0.07 0.08 0.09 0.10 0.11 0.12 0.13 0.14
Jan Feb Mar Apr May Jun Jul Aug Sep Oct Nov Dec
Month



Number of Inspections per Month by Inspector Cluster

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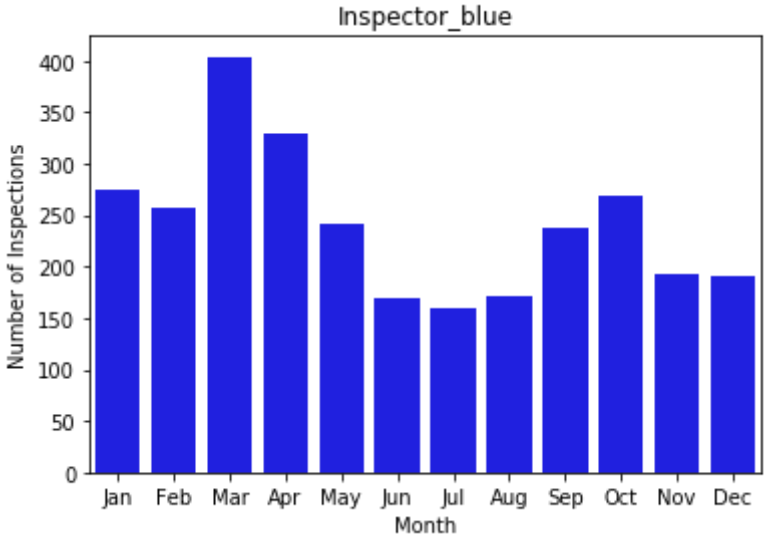
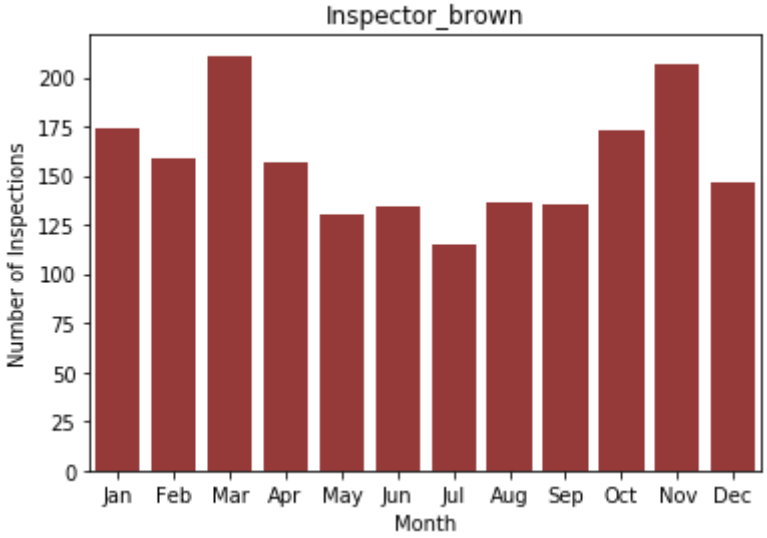
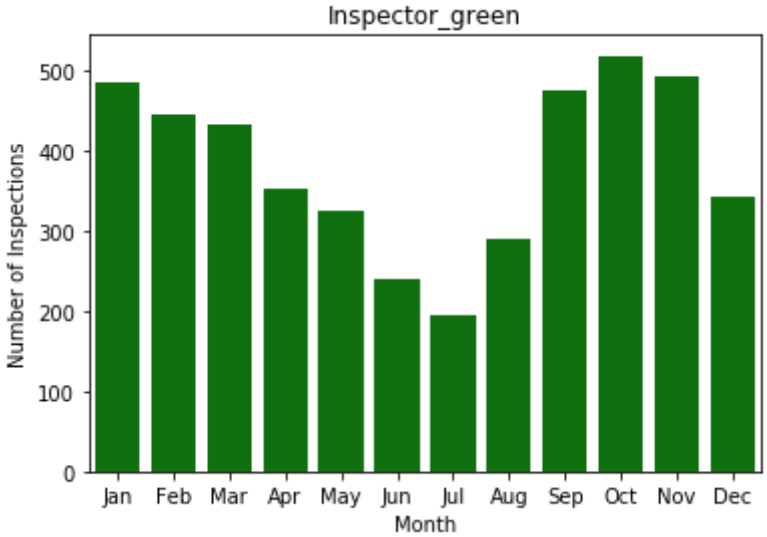
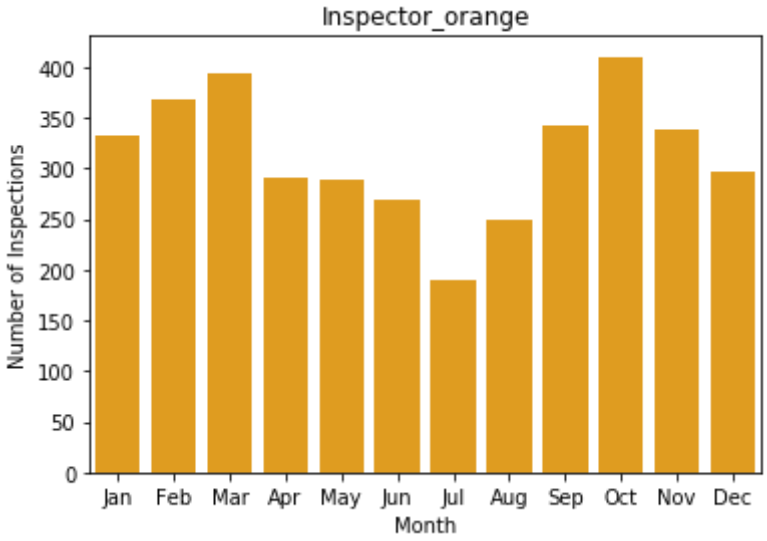
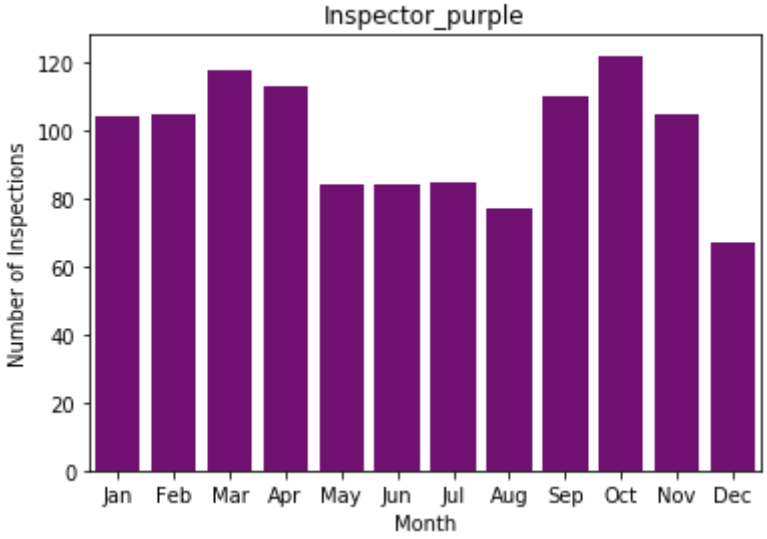
Read 17075 records.
```

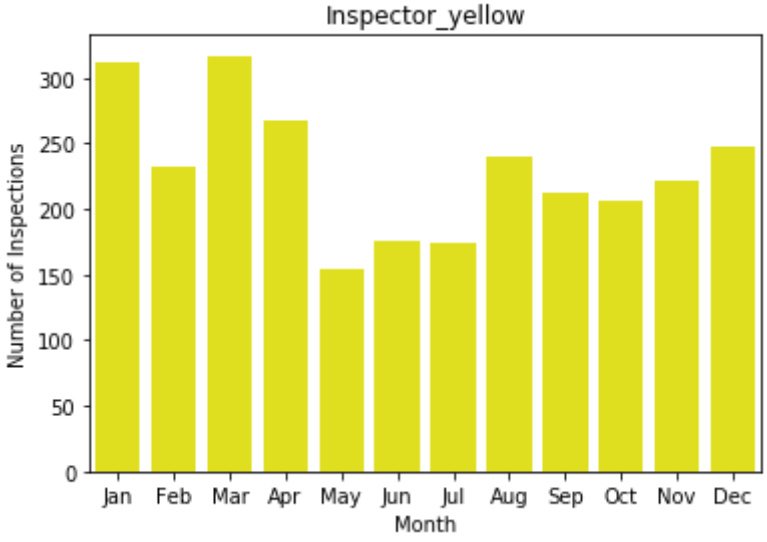

Inspector_blue
Number of Inspections
0
50
100
150
200
250
300
350
400
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


Inspector_brown
Number of Inspections
0
25
50
75
100
125
150
175
200
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


Inspector_green
Number of Inspections
0
100
200
300
400
500
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


Inspector_orange
Number of Inspections
0
50
100
150
200
250
300
350
400
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


Inspector_purple
Number of Inspections
0
20
40
60
80
100
120
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month


Inspector_yellow
Number of Inspections
0
50
100
150
200
250
300
Jan
Feb
Mar
Apr
May
Jun
Jul
Aug
Sep
Oct
Nov
Dec
Month