



SecurityScorecard

Measuring Browser Health

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About

About Security Scorecard

- Startup HQ in NYC
- VC Funded - GV, Sequoia, Nokia
- SaaS Platform
 - Scan the Internet
 - Attribute Findings
 - Grade Companies (>1 Million Companies)
- VRM, Cyber Insurance, Self Monitoring

About Me

- PhD in Physics
- Former User of *Gordon*
- Data Scientist Working in Cyber Security



Measuring Browser Health

Desktop Health

How can we measure the health of a cyber security program?

How many vulnerable versions of software is a company running?

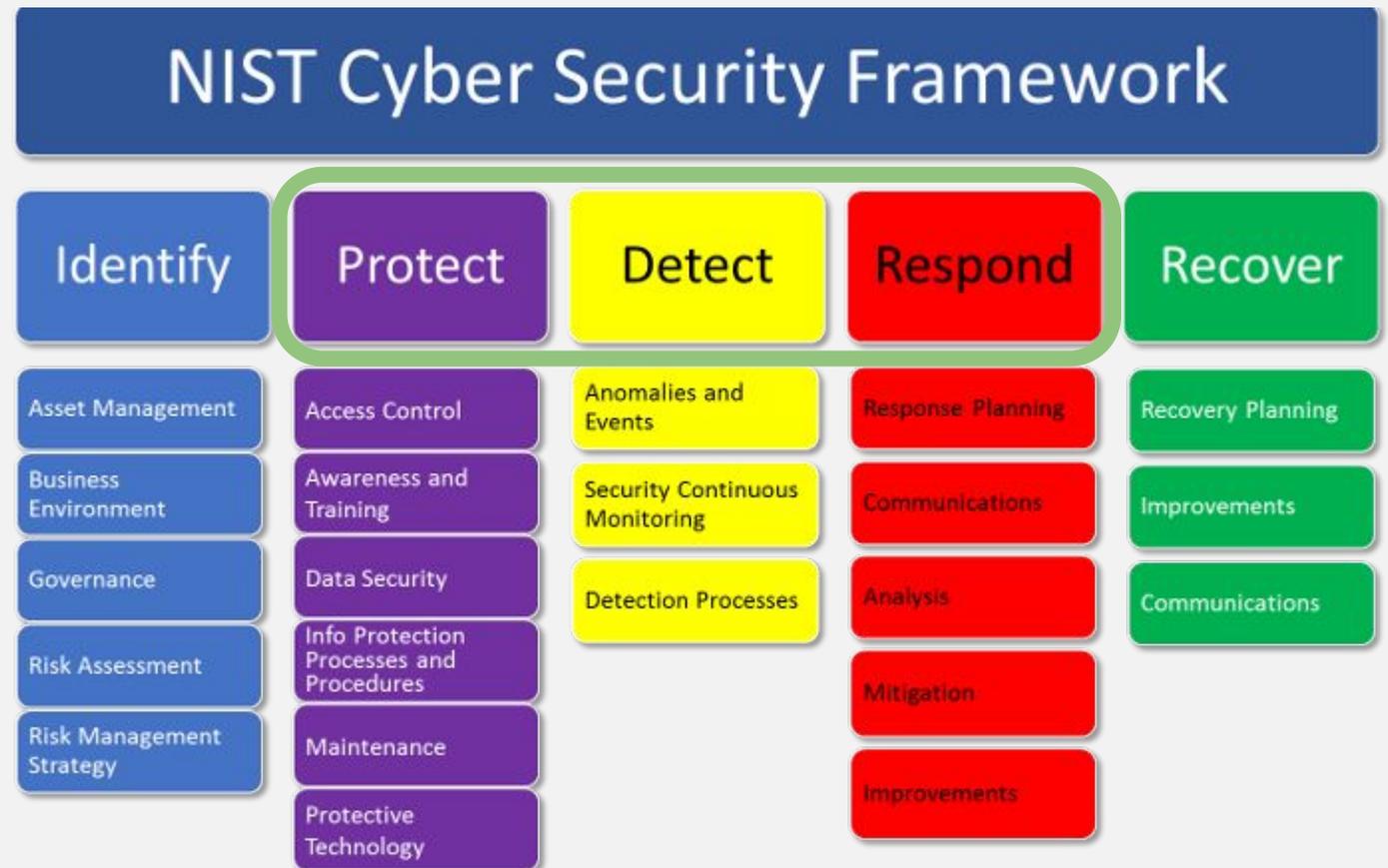
How quickly does a company update software?

What types of stories can we tell with the data we collect?

NIST Framework

Well known framework

Map analytics into this language



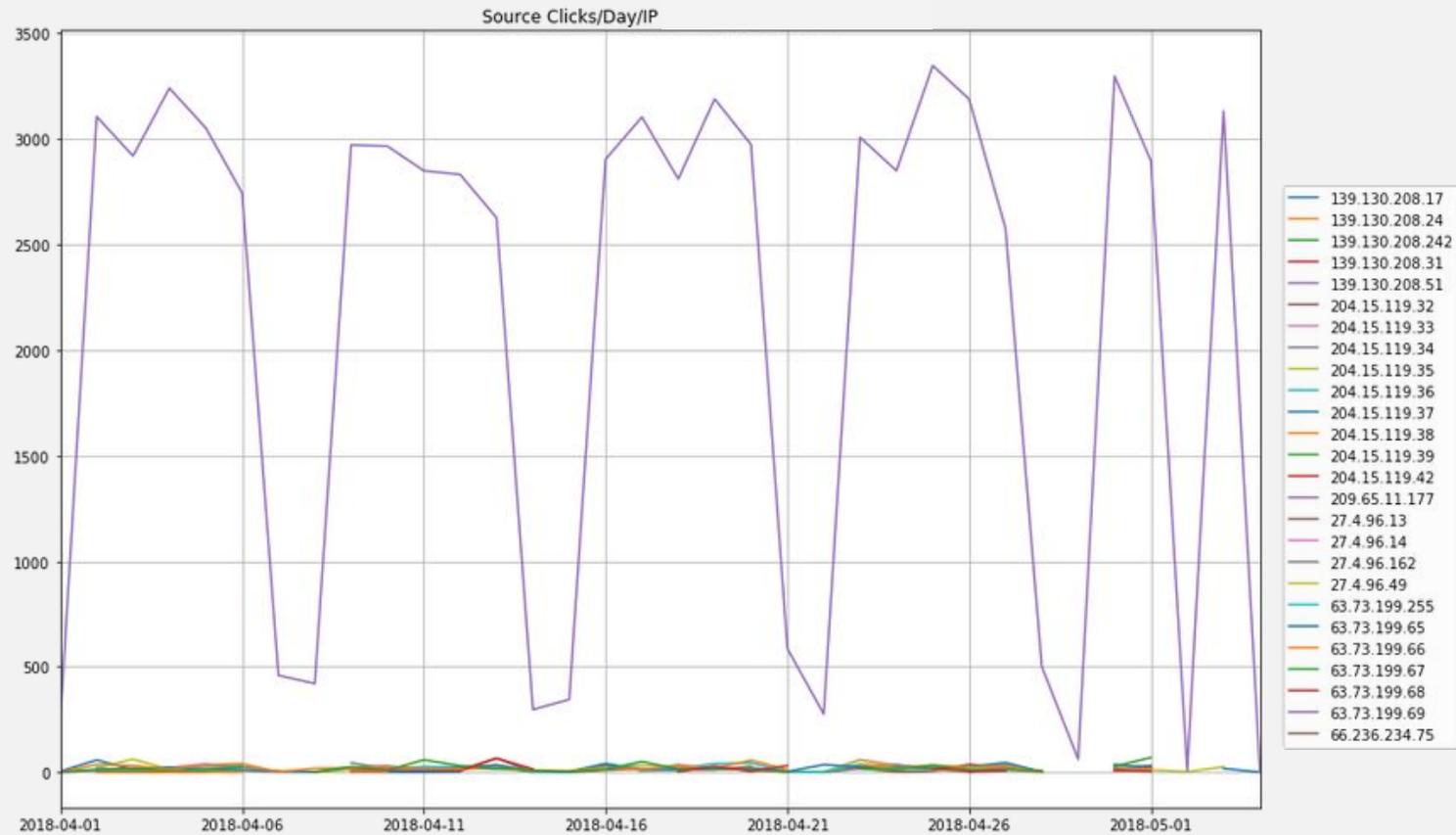
Our Model

Protect: The current fraction of browser clicks from an up-to-date browser when the company is in *steady state*

Detect: How long it takes for a company to have clicks from the latest browser after a new browser version is released

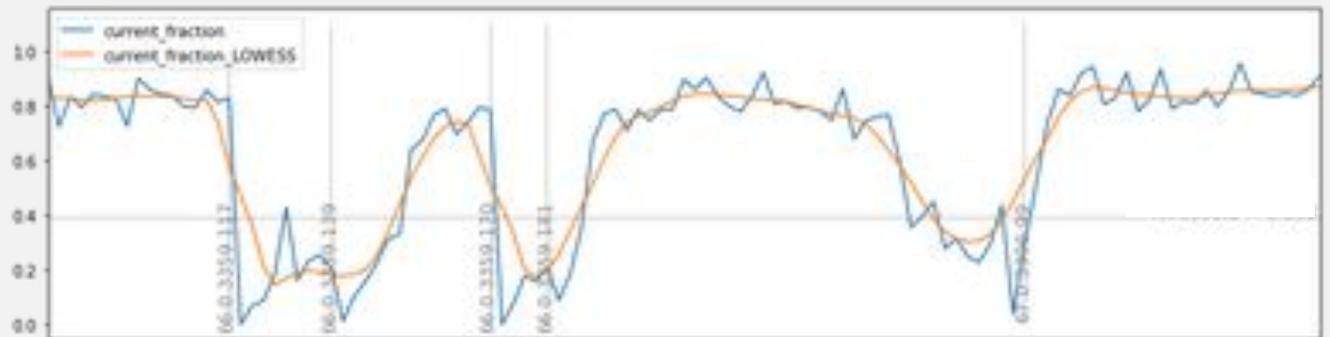
Respond: Length of time period between *detect* and *steady state*

Click Data



Fraction Up To Date

Smooth out click volume fluctuations

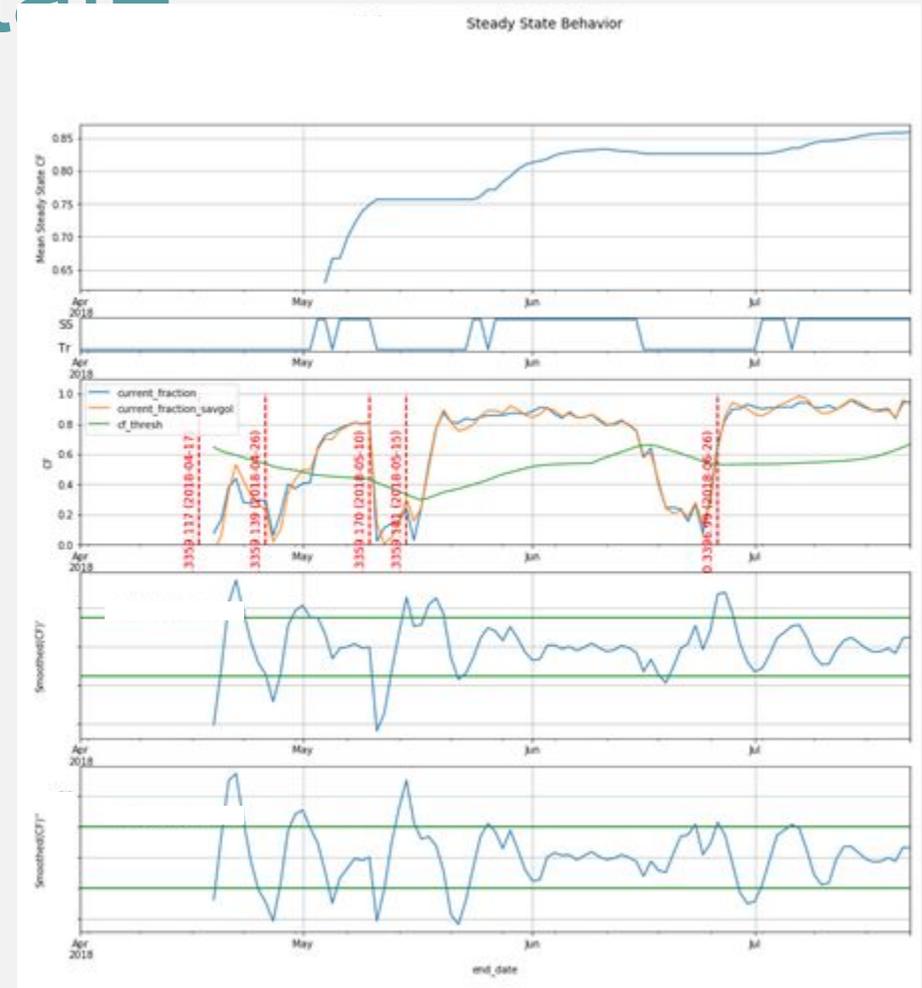


Apply smoothing to fraction up to date to remove noise

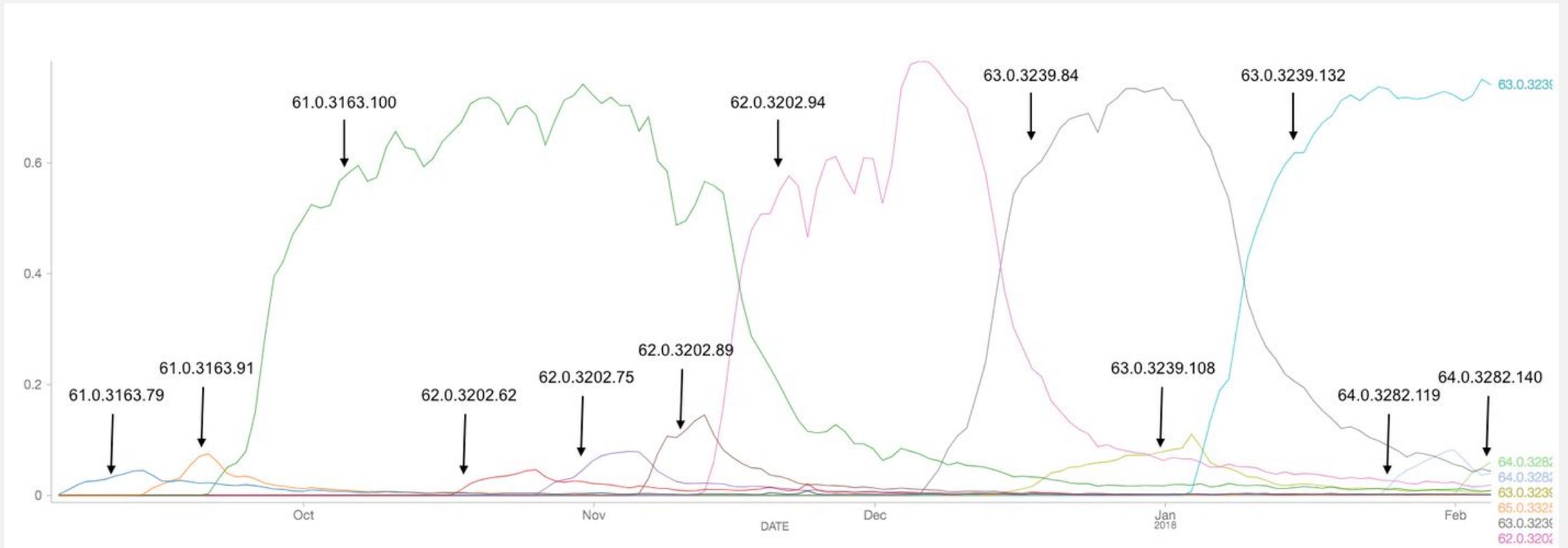
Steady State

3 criteria for Steady State

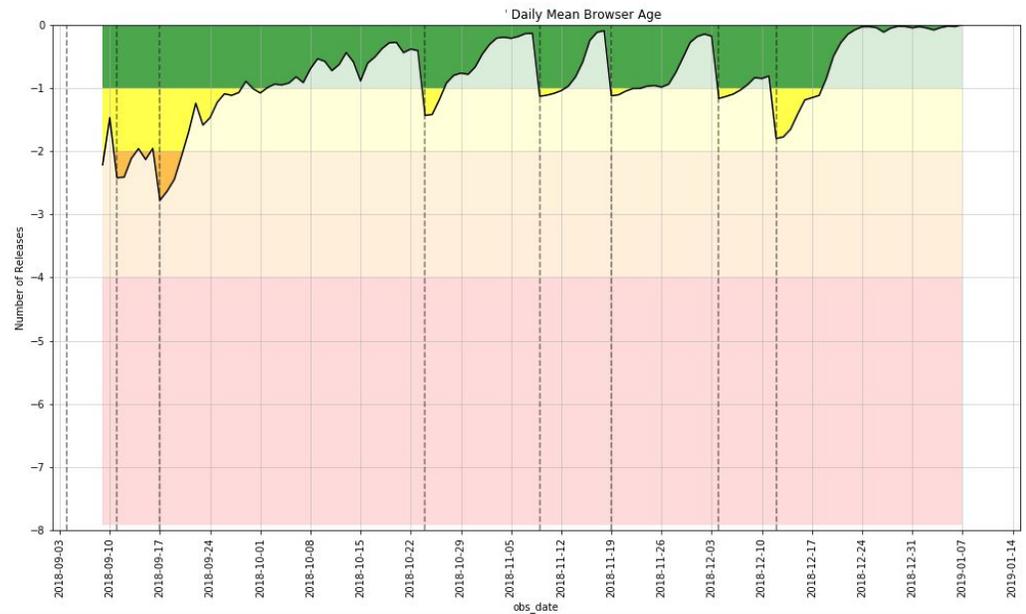
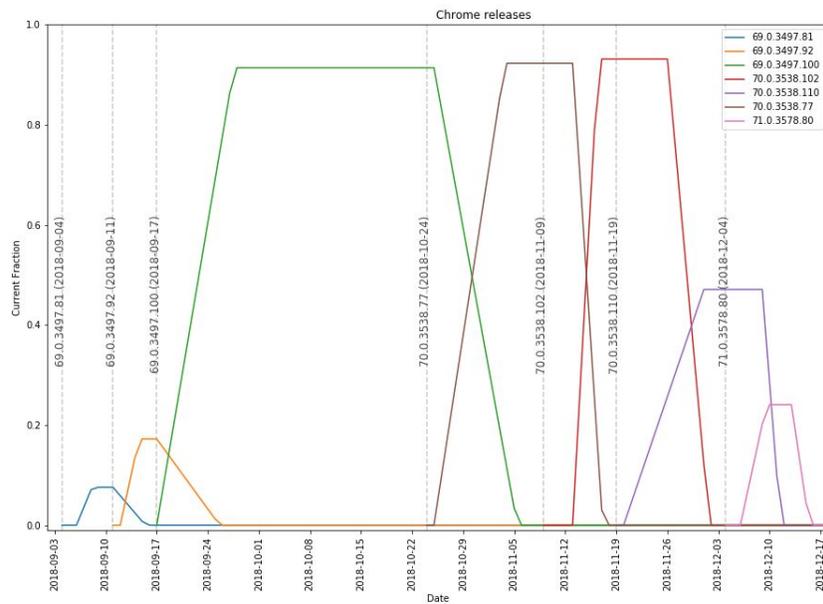
- *velocity* below threshold
- *acceleration* below threshold
- must be above 30 day median



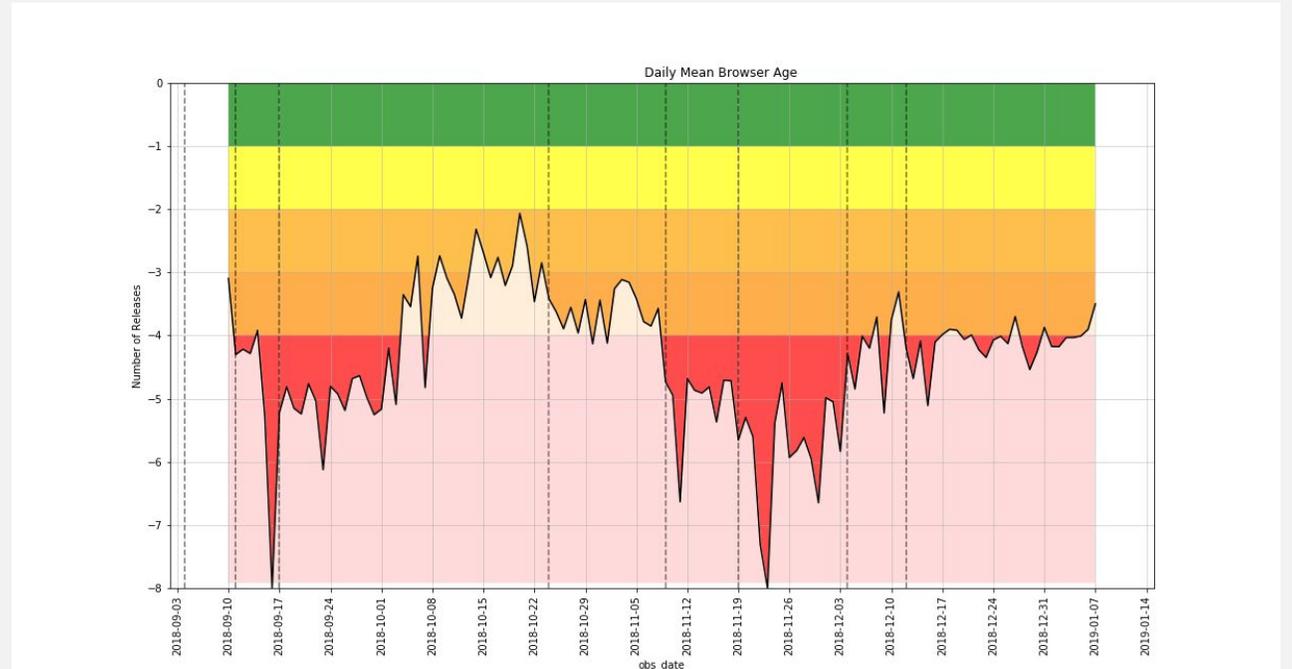
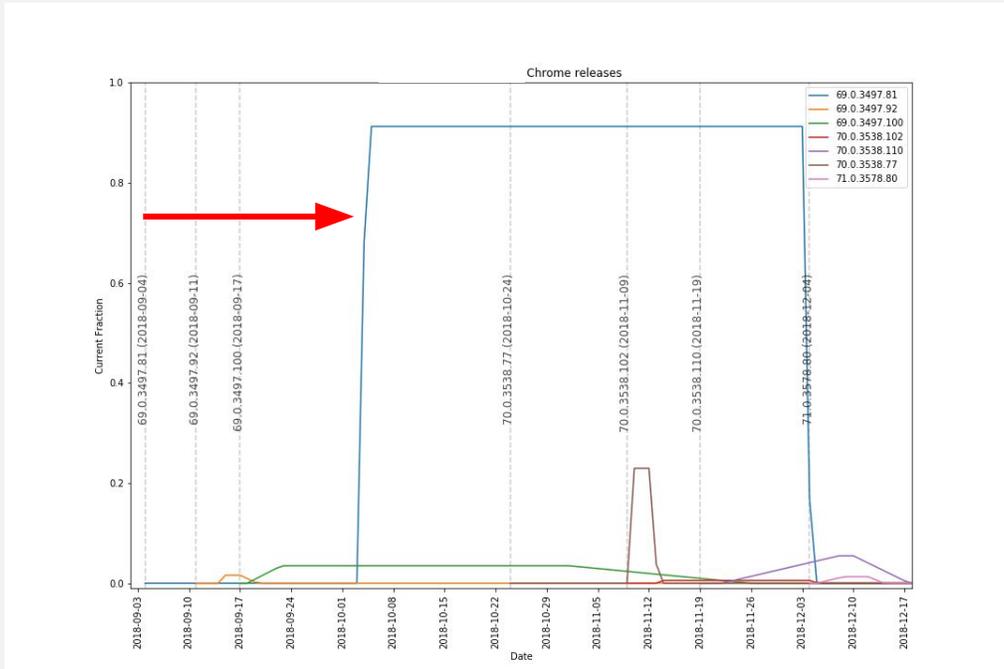
When is a New Browser Version Released?



Typical Behavior



Interesting Behavior



Report



SecurityScorecard

Thank You
