

Corey Capooci
cvcapooc@ncsu.edu
HW3

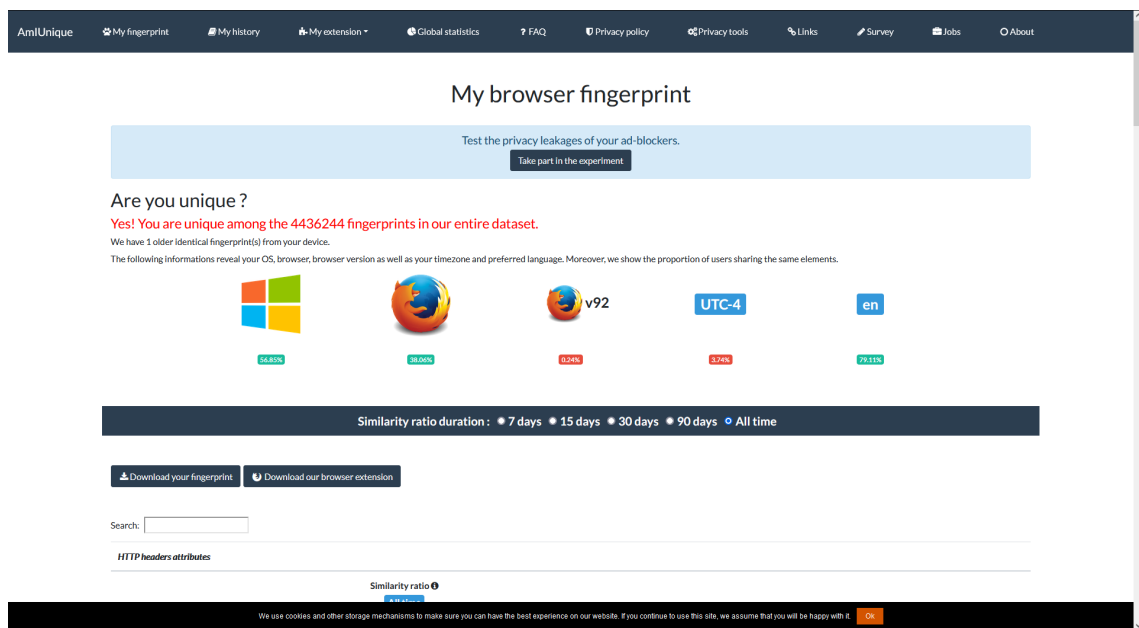
1

a

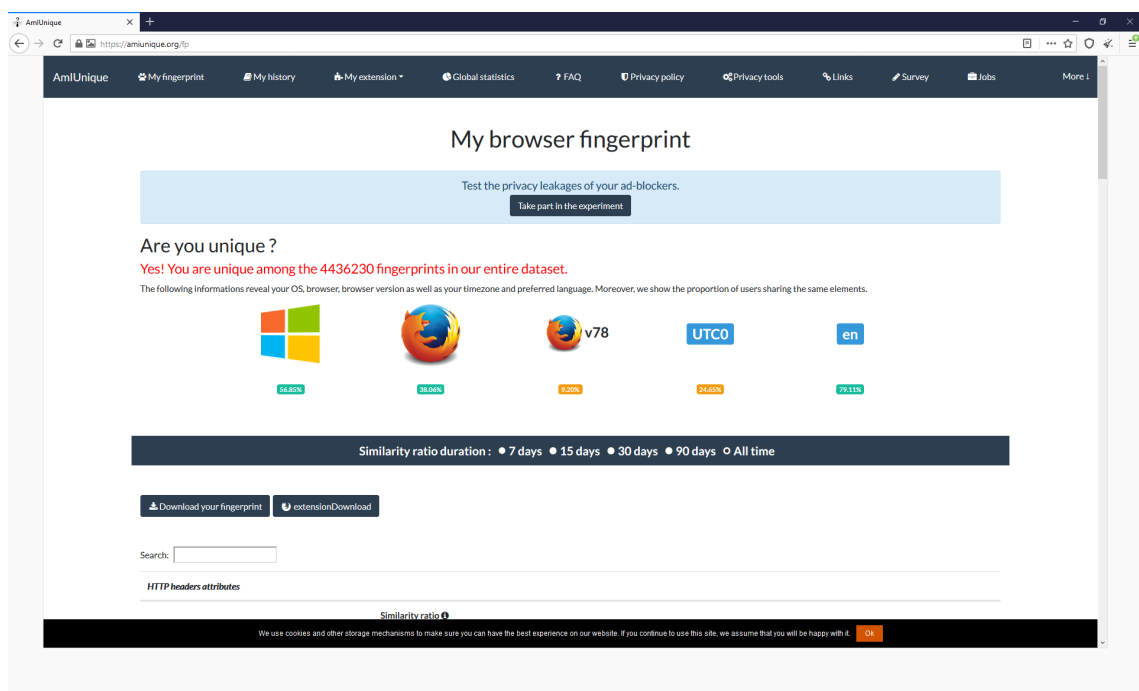
Tor Browser uses Firefox v78 and UTC0 whereas my Firefox is version v92 with UTC-4, see Figure 1 and Figure 2. Tor Browser's version and UTC number are less unique than the latest version of the Firefox that I am currently using. Tor Browser does not support WebGL which is a driver of uniqueness on Firefox, see Figure 3 and Figure 4. Tor Browser tends to avoid supporting features, most likely to become less unique. This can have a negative effect such as for audio context and frequency analyser where Firefox is less unique than Tor Browser, see Figure 7 and Figure 8. The canvas on both browsers are very unique but on the Tor Browser it is absolutely unique, see Figure 5 and Figure 6.

b

The takeaway is that both browser fingerprints are unique and can technically be tracked. Although, interestingly enough when I refresh both browsers, the Firefox fingerprint identified a previous identical fingerprint whereas the Tor browser fingerprint did not, see Figure 1 and Figure 2. The Firefox fingerprint therefore may require less computation to track the user whereas tracking the Tor Browser fingerprint may require more work computationally.



Figur 1: Firefox Browser Fingerprint



Figur 2: Tor Browser Fingerprint




Figur 3: Firefox WebGL



Figur 4: Tor Browser WebGL

Figur 5: Firefox Browser Canvas

Content language ⓘ	28.68%	en-US,en
Canvas ⓘ	Unique	
List of fonts (US) ⓘ	9.17%	Arabic Transparent, Arial, Arial Baltic, Arial Black, Arial Black, Arial CE and 38 others

Figur 6: Tor Browser Canvas

Audio context ⓘ	8.31%	channelCount : 2 channelCountMode : explicit channelInterpretation : speakers maxChannelCount : 2 numberOfInputs : 1 numberOfOutputs : 0 sampleRate : 48000 state : suspended
Frequency analyser ⓘ	27.98%	channelCount : 2 channelCountMode : max channelInterpretation : speakers fftSize : 2048

Figur 7: Firefox Browser's Supported Features Less Unique Than Tor Browser's Not Supported Features

Audio context ⓘ	4.26%	Not supported
Frequency analyser ⓘ	4.26%	Not supported
Audio data ⓘ	22.97%	Not supported

Figur 8: Tor Browser's Not Supported Features Driving Uniqueness

2

a

There are 54 unique third-party domains while visiting macys.com. There are 135 unique third-party domains while visiting cnn.com. There are 158 unique third-party domains across both cnn.com and macys.com.

b

There are 31 common unique third-party domains across cnn.com and macys.com.

c

For the Disconnect list, 87 requests are blocked while visiting macys.com. 597 requests are blocked while visiting cnn.com. 684 requests are blocked across both cnn.com and macys.com.

3

Rule	# of HTTP requests blocked
cookie-sync?	9
llpx.moatads.com ^\$image	3
llscorecardresearch.com ^\$script	3