

CPRE 492 Bi-Weekly Report #4

Report Weeks: March 1st - March 15th

Group Number: 16

Project Title: Cloudflare WAF AI

Client/Advisor: Cylosoft; Dr. Yong Guan, Dr. Berk Gulmezoglu

Team Members:

Ryan Burgett: Meeting Leader

Giovanni Mejia: Report Manager

Jordan Heim: Documentation Manager

Eric Reuss: Documentation Manager

Presiiian Iskrenov: Meeting Scribe

Benjamin Fedderson: Stakeholder Correspondent

Summary:

During this time period, the AI team has been working on finalizing and connecting everything to our actual database. Tensorflow and Anaconda environments have been researched and implemented to use when we are officially ready to start testing our models for the database. We still have some specifics we need to discuss with our client, in terms of us actually needing an AI model, or going without and using a hard-coded framework. Aside from that Ben has been working on the final touches with the Console App. We wanted to make sure there were no errors involved as the progress is slowly close to getting completed. There is a screenshot below with some detail about what is being tested and what has passed.

Past weekly Accomplishments:

Connection with TensorFlow and Anaconda has become successful with our AI team. In our previous meeting, we wanted to agree on the specifics and what frameworks we would be using for this project. To add on, we have also been implementing test code within our Tensorflow framework to ensure successful functionality. Ryan has been working on the static scans within the database. There has been an addition to adding scans within admin endpoints. It used to run a lot smoother within our database scans in the project.

Pending Issues:

Small issue with the actual functionality of our AI and if it is truly needed for this project. We have a meeting with our client on March 15th to discuss such details.

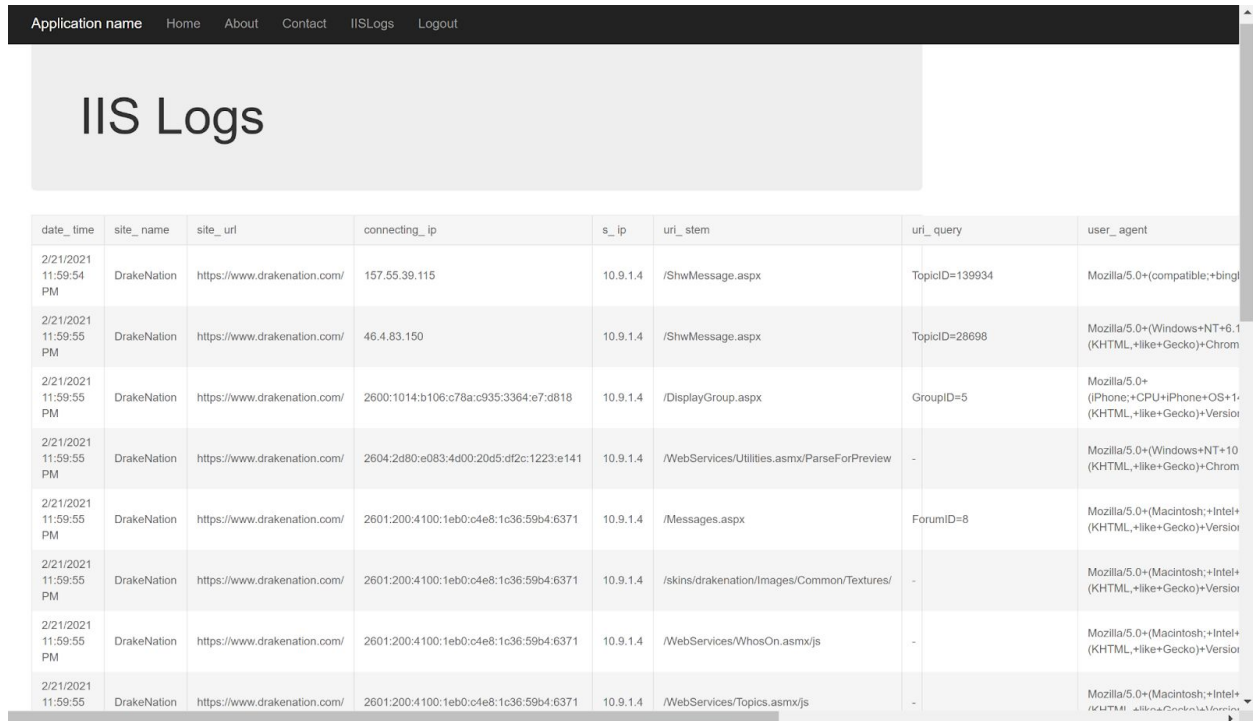
Individual Contributions:

| <u>Team Member:</u> | <u>Individual Contributions</u> | <u>Hours this week</u> | <u>Hours Cumulative</u> |
|----------------------------|---|-------------------------------|--------------------------------|
| Ryan Burgett | Worked on the database static scanner. Adding scans to admin endpoints to ensure full functionality of scans within the database. | 6 hours | 27 hours |
| Giovanni Mejia | Integrated anaconda and tensor flow within the SQL database and implemented test samples data. | 7 hours | 27 hours |
| Jordan Heim | Sampled around with random forests (variation of Decision trees for AI), established secure connection within the database. | 6 hours | 24 hours |
| Eric Reuss | Scheduled a meeting with our client to gather info about the database and other hardware resources. Made a secure connection with the database and tested tensorflow samples. | 8 hours | 26 hours |
| Presiiian Iskrenov | Worked on Tensorflow test code and established a full connection with the SQL database. | 8 hours | 26 hours |
| Benjamin Fedderson | Worked on a .NET web application that displays the contents of the database and filters out specific data based on specific requests. | 8 hours | 30 hours |

Plans for the upcoming week:

Once we conclude our meeting with our Client, the AI team hopes to have a better understanding of what to train and what to implement within our AI software. It's something that we've been discussing for a while and with clarification, we can start final development.

A screenshot of IIS Log server usage



The screenshot shows a web application titled "IIS Logs" with a navigation menu at the top containing "Application name", "Home", "About", "Contact", "IISLogs", and "Logout". Below the title is a table with the following columns: date_time, site_name, site_url, connecting_ip, s_ip, uri_stem, uri_query, and user_agent. The table contains eight rows of log data for the date 2/21/2021, all from the site DrakeNation.

| date_time | site_name | site_url | connecting_ip | s_ip | uri_stem | uri_query | user_agent |
|-----------------------|-------------|------------------------------|--|----------|---|----------------|--|
| 2/21/2021 11:59:54 PM | DrakeNation | https://www.drakenation.com/ | 157.55.39.115 | 10.9.1.4 | /ShwMessage.aspx | TopicID=139934 | Mozilla/5.0+(compatible;+bingl |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 46.4.83.150 | 10.9.1.4 | /ShwMessage.aspx | TopicID=28698 | Mozilla/5.0+(Windows+NT+6.1 (KHTML,+like+Gecko)+Chrom |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 2600:1014:b106:c78a:c935:3364:e7:d818 | 10.9.1.4 | /DisplayGroup.aspx | GroupID=5 | Mozilla/5.0+ (iPhone;+CPU+iPhone+OS+1. (KHTML,+like+Gecko)+Versior |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 2604:2d80:e083:4d00:20d5:d2c:1223:e141 | 10.9.1.4 | /WebServices/Utilities.aspx/ParseForPreview | - | Mozilla/5.0+(Windows+NT+10 (KHTML,+like+Gecko)+Chrom |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 2601:200:4100:1eb0:c4e8:1c36:59b4:6371 | 10.9.1.4 | /Messages.aspx | ForumID=8 | Mozilla/5.0+(Macintosh;+Intel+ (KHTML,+like+Gecko)+Versior |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 2601:200:4100:1eb0:c4e8:1c36:59b4:6371 | 10.9.1.4 | /skins/drakenation/Images/Common/Textures/ | - | Mozilla/5.0+(Macintosh;+Intel+ (KHTML,+like+Gecko)+Versior |
| 2/21/2021 11:59:55 PM | DrakeNation | https://www.drakenation.com/ | 2601:200:4100:1eb0:c4e8:1c36:59b4:6371 | 10.9.1.4 | /WebServices/WhosOn.aspx/js | - | Mozilla/5.0+(Macintosh;+Intel+ (KHTML,+like+Gecko)+Versior |
| 2/21/2021 11:59:55 | DrakeNation | https://www.drakenation.com/ | 2601:200:4100:1eb0:c4e8:1c36:59b4:6371 | 10.9.1.4 | /WebServices/Topics.aspx/js | - | Mozilla/5.0+(Macintosh;+Intel+ (KHTML,+like+Gecko)+Versior |

Here is a screenshot of our IIS log files. We have been testing our database to track and see if we can find any errors within each entry that we receive. From the 850,000 entries that we received, so far we have not found anything out of the ordinary. So we can conclude it's been running smoothly with no issues at the moment.