

## **Status Report**

**3/16/2023**

**TEAM RAD**

### **Real-time Anomaly Detection**

#### **This Week's Achievements**

- Created SageMaker Notebook instance, model configuration and endpoint configuration
- Uploaded updated SageMaker tar.gz file and generate functional endpoint for SageMaker inference
- Created more neutral network traffic, this includes a continuous flow of TCP and UDP traffic going between Server and Client

#### **This Week's Goals**

- Finish data preprocessing in SageMaker to format incoming data
- Test data against the SageMaker inference endpoint (what are our real-time metrics?)
- Test neutral network traffic against the endpoint

#### **Overall Goals**

- Test SageMaker model with testing and validation data and record results to S3 bucket
- Implement packet capture with python Scapy and output data as CSV string buffer
- Finish code for VM "Evil" simulation machines
- Find how much friendly traffic is suitable for testing

Capturing from eth0

File Edit View Go Capture Analyze Statistics Telephony Wireless Tools Help

ip.addr == 192.168.100.4

No.	Time	Source	Destination	Protocol	Length	Info
7	34.399211210	10.0.2.4	192.168.100.4	TCP	74	46768
8	35.410724493	10.0.2.4	192.168.100.4	TCP	74	[TCP F
9	37.430439832	10.0.2.4	192.168.100.4	TCP	74	[TCP F
10	41.533589586	10.0.2.4	192.168.100.4	TCP	74	[TCP F
11	49.738224538	10.0.2.4	192.168.100.4	TCP	74	[TCP F
12	65.893488444	10.0.2.4	192.168.100.4	TCP	74	[TCP F
15	124.188224118	10.0.2.4	192.168.100.4	UDP	60	50065

Frame 7: 74 bytes on wire (592 bits), 74 bytes captured (592 bits) on interface eth0  
Ethernet II, Src: PcsCompu\_53:35:5d (08:00:00:53:35:5d), Dst: 192.168.100.4 (08:00:00:08:00:06)  
Internet Protocol Version 4, Src: 10.0.2.4, Dst: 192.168.100.4  
Transmission Control Protocol, Src Port: 46768, Dst Port: 80

eth0: <live capture in progress> Packets: 23 · Displayed: 7 (30.4%) Profile: Default