AR Security 10/18

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Pandas & Data Analysis

```python
#Imports
import pandas as pd

#Load csv files
meeting_blinds = pd.read_csv('power_profiler_scan/pp_meeting_floor3_blinds_scan.csv')
meeting_windows = pd.read_csv('power_profiler_scan/pp_meeting_floor3_windows_scan.csv')

#Only record data between times where actually scanning with program, drop unnecessary columns,
#and normalize input for time for analysis
drop_columns = ['time', 'events']
meeting_blinds.drop(index=0, inplace=True)
meeting_windows.drop(index=0, inplace=True)

meeting_blinds = meeting_blinds.apply(pd.to_numeric, errors='coerce')
blinds = meeting_blinds[(meeting_blinds['time'] >= 58) & (meeting_blinds['time'] <= 234)]
blinds = blinds.drop(columns=drop_columns)
average_blinds = blinds.mean(numeric_only=True)

meeting_windows = meeting_windows.apply(pd.to_numeric, errors='coerce')
windows = meeting_windows[(meeting_windows['time'] >= 46) & (meeting_windows['time'] <= 194)]
windows = windows.drop(columns=drop_columns)
average_windows = windows.mean(numeric_only=True)
```

notes.ipynb ↓M | blinds.txt

data_analysis > blinds.txt

```
Average output for Meeting Room (Blinds) while scanning:
wearable                 5.703647e+06
soc                      1.264688e+06
cvip                     1.665743e+06
cpu                      1.218131e+06
gpu                      1.970499e+06
5v_sys                   6.584327e+06
nvme_pwr1                2.368182e+03
nvme_pwr3                3.607955e+04
nvme_pwr2                6.995455e+03
wlan                     2.205875e+05
vddp_run                 6.965000e+04
vddp_s5                  6.861705e+04
LPDDR_PWR                2.690651e+06
PROC_TOT_PWR             6.170345e+06
THERM_TOT_PWR            8.860997e+06
THERM_TOT_PWR-throttle   2.500000e+07
Tboard_soc1tmp           1.225686e+02
Tdiode_soc1tmp           1.207911e+02
battery                  8.176407e+01
chrgr                    1.148832e+02
ddr1                     1.215033e+02
ddr2                     1.196374e+02
mem                      1.116270e+02
mero2                    1.221270e+02
vrm                      1.186866e+02
dtype: float64
```

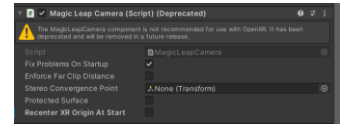
windows.txt

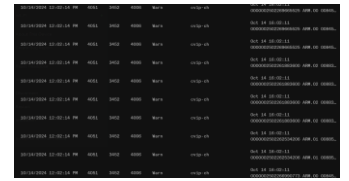
data_analysis > windows.txt

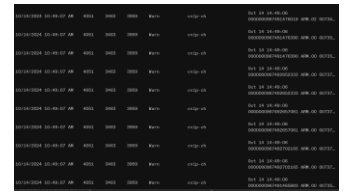
```
Average output for Meeting Room (Windows) while scanning:
wearable                 6.402940e+06
soc                      1.260885e+06
cvip                     2.110346e+06
cpu                      1.263579e+06
gpu                      1.575549e+06
5v_sys                   7.528934e+06
nvme_pwr1                6.284168e+03
nvme_pwr3                4.905413e+04
nvme_pwr2                7.499323e+03
wlan                     2.264560e+05
vddp_run                 7.153721e+04
vddp_s5                  7.162923e+04
LPDDR_PWR                2.689920e+06
PROC_TOT_PWR             6.408363e+06
THERM_TOT_PWR            9.098283e+06
THERM_TOT_PWR-throttle   2.500000e+07
Tboard_soc1tmp           1.276046e+02
Tdiode_soc1tmp           1.253771e+02
battery                  8.872533e+01
chrgr                    1.194866e+02
ddr1                     1.258917e+02
ddr2                     1.237290e+02
mem                      1.165886e+02
mero2                    1.266866e+02
vrm                      1.230811e+02
dtype: float64
```

Unity Troubleshooting

- A lot of resources Magic Leap and Unity share are discontinued
- Magic Leap is also being discontinued
- Unity project stopped running so was troubleshooting
- Met with Library Consultant
  - Said a lot of things that could be done with Unity works on other headsets but Magic Leap.
- Unity GPU profiler is there, but don’t know if we could run while having it on.
- Will look into timeframmanager maybe
- Continue library consulting







Current Questions

- What other avenues could attackers get access to the headset (that we could explore)?